2006 Annual Report
St. Regis Paper Company Site
Cass Lake, Minnesota

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1.0 Introduction

This annual report has been prepared to fulfill the requirements of Section IX, Paragraphs 33, 34, and 35 of the January 24, 1995 Administrative Order (Order) issued by the U.S. Environmental Protection Agency pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended, (CERCLA) 42 U.S.C. § 9601 (a) for the St. Regis Paper Company Site.

The January 24, 1995 Order designated the following operable units at the Site:

- OU1 (Treating Facility Operable Unit)
- OU2 (Containment Vault Operable Unit)
- OU3 (City Dump Pit Operable Unit)

These operable units are shown on Figure 1. Construction and implementation of the response actions at the Site began in 1985 and were completed in 1987. Operation and maintenance of the selected response actions are continuing.

This annual report summarizes the results of routine monitoring and maintenance activities at the Site. The 2006 activities are recommended in the 2005 Annual Monitoring Report and as described in the 2006 Monitoring Plan conditionally approved by EPA in a July 28, 2006 letter. The Quality Assurance Project Plan (QAPP) and Field Sampling Plan (FSP) were also revised to be consistent with the 2006 Monitoring Plan and were conditionally approved by EPA in the July 28, 2006 letter.

2.0 Monitoring Activities

Monitoring at the Site in 2006 was conducted in accordance with and as required by the following permits and plans:

- The January 24, 1995 Administrative Order (Order) issued by the U.S. Environmental Protection Agency pursuant to Section 106(a) of CERCLA, 42 U.S.C.§ 9601 (a).
- Recommendations in the 2005 Annual Monitoring Report.
- Approved 2006 Monitoring Plan.
- Approved Quality Assurance Project Plan, Revision 2, St. Regis Paper Company Sites, (August 28, 2006).

The geologic and hydrogeologic conditions at the Site are described in the following reports:

- Remedial Investigation/Alternatives Report (April 1985).
- Supplemental Remedial Investigation Report (July 1985).
- Groundwater Flow Model, Model Construction (May 1996).
- Hydraulic Capture Zone Report (Revised February 2007)

Monitoring wells at the Site are identified according to the following numbering system, which is based on the screened interval of the well:

Screened Interval	Well Number		
	OU1	OU2	OU3
Monitoring Wells			
Surficial Aquifer – Top	1XX	124-130	21XX
Surficial Aquifer – Base	2XX	--	22XX
Lower Aqufier	3XX	--	23XX
Extraction Wells			
Surficial Aquifer	4XX	--	24XX
Observation/Scavenger Wells			
Surficial Aquifer	5XX	--	25XX

The monitoring wells at OU2 (Wells 124 through 130) are screened throughout the saturated thickness of the surficial aquifer.

The following sections summarize the monitoring activities conducted in 2006 at each of the operable units. These monitoring activities consisted of measuring groundwater levels, collecting and analyzing groundwater and surface water samples, and inspecting and dewatering the containment vault. Tables 1 and 2 summarize the 2006 sampling events and the locations monitored during each sampling event. The locations of the groundwater and surface water monitoring stations are shown on Figure 2.

2.1 OU1 – Treating Facility Operable Unit

2.1.1 Activities

2.1.1.1 Installation of Soil Borings, Monitoring Wells and Piezometers

New soil borings, monitoring wells and piezometers were installed at the Site in 2006 as detailed in the Hydraulic Capture Zone Report (Revised February 2007), which was submitted to EPA on February 27, 2007. The locations of the new soil borings, monitoring wells and piezometers are shown on Figure 2. According to EPA[1], a piezometer is a small-diameter, non-pumping well used to measure the elevation of the water table or potentiometric surface.

Three soil borings were installed in the north storage area and identified that the till unit is present at those locations as expected. Six permanent piezometers and one temporary piezometer were installed at OU1. The permanent piezometers replaced the piezometers that were originally installed between the extraction wells. The old piezometers produced anomalous water levels compared to nearby wells and were screened across wetland deposits. The replacement piezometers are screened deeper in the surficial aquifer and not across the wetland deposits. A temporary piezometer (222T) was installed in the wetland northeast of wells 105/205 to provide water level data until a permanent monitoring well could be installed in the area. The permanent monitoring well was installed in February 2007 and is screened at the base of the surficial aquifer. One monitoring well (well 223) screened at the base of the surficial aquifer was installed between OU1 and OU3. The logs of the soil boring and monitoring well installation are in Appendix E.

[1] RCRA Groundwater Monitoring Technical Enforcement Guidance Document; Office of Water Programs Enforcement, Office of Solid Water and Emergency, Washington D.C. OSWER-9950.1.

2.1.1.2 Survey of Monitoring Stations

Existing monitoring stations were surveyed in late March 2006 using the NAVD 88 datum (vertical) and NAD 83 datum (horizontal) at the request of EPA. The new wells and piezometers were surveyed in early July 2006 by the same surveyor that completed the March 2006 survey using the same datum. In addition, the measuring point elevations for W217, W218, and W219 were verified during the September 2006 groundwater sampling event. The updated survey data are in Table 4.

2.1.1.3 Extraction System

International Paper is authorized to appropriate up to 131 x 10^6 gallons per year at OU1 as detailed in Water Appropriation Permit # 86-3108. The maximum design capacity and approximate 2006 annual average pumping rate for each extraction well are compared to 2004 and 2005 annual average rates in the following table:

Extraction Well	Maximum Design Capacity[2] [gpm]	2004 Pumping Rate [gpm]	2005 Pumping Rate [gpm]	2006 Pumping Rate [gpm]
401	15	4.8	4.1	3.3
402	15	5.4	5.3	4.0
403	25	3.7	5.2	6.8
404	25	0	0	0
405	25	18.9	18.3	16.0
406	25	3.9	2.9	4.7
407	25	8.1	5.2	9.4
408	15	6.7	4.8	4.6
409	25	14.0	15.6	16.4
410	25	5.1	4.2	6.3
Total	220	70.6	65.6	71.4

[2] Table 1. *Response Action Final Report, Cass Lake Treating Facility Site*, Prepared for Champion International. September 1988.

The OU1 extraction system was maintained as described in the *Operation and Maintenance Plan, St. Regis Paper Company Site, Cass Lake, Minnesota*, dated March, 1995. Maintenance activities included installing new pumps and/or jetting of the well screen for certain extraction wells. In addition, the force mains from the individual wells at OU1 to the water treatment building were cleaned. These maintenance activities increased the pumping capacity at many of the extraction wells. Maintenance activities and daily discharge volumes are documented in the quarterly progress reports that were submitted to EPA. Table 5 presents the average pumping rate by month for each extraction well, along with the monthly precipitation.

The extraction system was temporarily shut down during the aquifer tests conducted in December 2006. The technical memorandum detailing the proposed aquifer tests was emailed to EPA on November 2, 2006 and was conditionally approved in a email forwarded by Dave Dougherty on November 28, 2006. The results of the aquifer test are described in the document titled Technical Memorandum, December 2006 Aquifer Test at St. Regis Paper Company Site, which was submitted to EPA on February 26, 2007. Information regarding the aquifer test and associated water level measurements are not described in this report.

2.1.2 Water Levels

Water levels were measured at the OU1 monitoring wells, piezometers, and staff gages in May, June and twice in September, 2006.

2.1.3 Water Quality

Water samples were collected from the OU1 monitoring wells, extraction wells and the channel connecting Pike Bay and Cass Lake in September 2006. Groundwater samples were collected from monitoring wells screened in the surficial aquifer (top and bottom) and the lower aquifer. All samples were analyzed for pentachlorophenol (PCP) and the polyaromatic hydrocarbon (PAH) compounds listed in Table 6. In addition, samples from selected monitoring wells were analyzed for benzene, toluene, ethyl benzene and xylene, diesel range organics (DRO), dioxins/furans, and extended list PAHs (Table 7) as described in the 2006 Monitoring Plan.

Surface water samples were collected in September at the north end (CL-N) and south end (CL-S) of the channel connecting Cass Lake and Pike Bay. These samples were analyzed for PCP.

In addition, water samples were collected from the monitoring wells included in the quarterly monitoring program in September and December 2006. These are wells 212, 213, and 220 at OU1. This quarterly program was initiated at the request of EPA in September 2006.

2.2 OU2 – Containment Vault Operable Unit

2.2.1 Activities

The containment vault was inspected on May 12 and November 9, 2006. Results of the inspection are discussed in Section 3.3 of this report. Vault dewatering activities continued as described in the September 17, 2001 Updated Leachate Disposal Plan and as discussed in Section 3.4 of this report.

2.2.2 Water Levels

Water levels were measured at the OU2 monitoring wells in May, June and twice in September 2006.

2.2.3 Water Quality

The vault monitoring wells were sampled in September and the samples were analyzed for PCP and the PAH compounds in Table 6.

2.3 OU3 – City Dump Pit Operable Unit

2.3.1 Activities

2.3.1.1 Installation of Monitoring Wells and Piezometer

Three new monitoring wells and a replacement piezometer were installed at OU3 as described in the Hydraulic Capture Zone Report (Revised October 2007), which was submitted to EPA on February 27, 2007.

Two of the new monitoring wells are screened at the base of the surficial aquifer (wells 2233 and 2236) and one of the new monitoring wells is screened in the lower aquifer (well 2336). The locations of the new monitoring stations are shown on Figure 2.

Piezometer 2505 was installed to replace piezometer 2503, which was originally screened across the wetland deposit and later determined to produce anomalous water levels. A potential zone of dense non-aqueous phase liquid (DNAPL) was identified while completing the boring for piezometer 2505. Soil in the zone was stained with a dark color and exhibited a tar-like odor. This zone was

approximately 1 foot thick and was within a coarse sand and gravel layer directly overlying the till unit at a depth of 58.5 feet below the ground surface. The till did not appear to be impacted by the DNAPL since the tPAH concentration in the coarse sand and gravel layer was about 2100 mg/Kg and the concentration in the sample collected from the upper till layer was about 1 mg/Kg. Because of the potential DNAPL, the screen of piezometer W2505 was set approximately 6-inches into the till unit. Additional details regarding this boring are provided in the Hydraulic Capture Zone Report (Revised February 2007).

2.3.1.2 Survey of Monitoring Stations

Existing monitoring stations at OU3 were surveyed in late March 2006 using the NAVD 88 datum (vertical) and NAD 83 datum (horizontal) at the request of EPA. The new wells at OU3 were surveyed in early July 2006 by the same surveyor that completed the March 2006 OU1 and OU3 survey using the same datums. The updated survey data is in Table 4.

2.3.1.3 Extraction System

International Paper is authorized to appropriate up to 32 x 10^6 gallons per year at OU3 as detailed in Water Appropriation Permit # 87-3285. The design pumping rate and annual average pumping rate for each OU3 extraction well are compared to the 2004 and 2005 annual average rates in the following table:

Extraction Well	Maximum Design Capacity[3] [gpm]	2004 Pumping Rate [gpm]	2005 Pumping Rate [gpm]	2006 Pumping Rate [gpm]
2401	40	7.6	4.2	3.7
2402	40	14.6	16.1	13.5
2403	40	19.6	14.6	12.5
Total	120	41.9	34.9	29.7

The OU3 extraction system was maintained as described in the *Operation and Maintenance Plan, St. Regis Paper Company Site, Cass Lake, Minnesota*, dated March 1995. Maintenance activities

[3] Figure 4. *Response Action Final Report. Former City Dump Pit Site*. Prepared for Champion International. November 1988.

included installing new pumps and/or jetting of the well screen for certain extraction wells. Maintenance activities and daily discharge volumes are documented in the quarterly progress reports that were submitted to EPA in 2006. Table 5 presents the average pumping rate by month for each OU3 extraction well, along with the monthly precipitation.

2.3.2 Water Levels

Water levels were measured at OU3 monitoring wells and staff gages at OU3 in May, June and twice in September.

2.3.3 Water Quality

Groundwater samples were collected in September from OU3 monitoring wells screened in the surficial aquifer (top and bottom) and lower aquifer. Samples were analyzed for PCP and the PAH compounds in Table 6. Samples from selected monitoring wells were also analyzed for benzene, toluene, ethyl benzene and xylene, diesel range organics (DRO), dioxins/furans, and the extended list PAHs in Table 7 as described in the 2006 Monitoring Plan.

In addition, water samples were collected from the monitoring wells that are included in the quarterly monitoring program in September and December 2006. These are wells 2128, 2233, 2236 and 2336 at OU3. The quarterly program was initiated in September 2006 as the request of EPA. The locations of the OU3 monitoring stations are shown in Figure 2.

2.4 Groundwater Treatment System

The extracted groundwater from the OU1 and OU3 extraction systems is treated prior to discharge to the Cass Lake/Pike Bay Channel to meet effluent limits specified in the NPDES and State Disposal System Permit No. MN0056537 and by EPA (August 15, 2005 letter). International Paper is authorized to discharge treated water to the channel connecting Cass Lake and Pike Bay at a maximum rate of 288,000 gallons per day (i.e., 200 gpm).

The groundwater treatment system utilizes granular activated carbon and consists of three 20,000 lbs carbon units operated in series. The carbon units are designated Adsorber “A”, “B”, and “C”.

2.4.1 Activities

Carbon system was operated as indicated below:

Date	Primary	Secondary	Tertiary
Begin 2006	C	A	B
Change-out C on 6/08/06	A	B	C
End 2006	A	B	C

During change-out, the spent carbon is removed from the primary adsorber and replaced with regenerated carbon. After change-out, the primary vessel is switched to the tertiary position, the tertiary vessel is switched to the secondary position, and the secondary vessel becomes the primary. The spent carbon is dewatered on-site and transported to the Envirotrol facility located in Beaver Falls, Pennsylvania for regeneration. The hazardous waste manifest is in Appendix F. Regenerated carbon is returned and reused at the Site.

2.4.2 Water Quality

2.4.2.1 Effluent Monitoring

Influent and effluent samples from the treatment system were collected as required by the NPDES and State Disposal System Permit No. MN0056537 until September when a revised monitoring program was initiated. The revised monitoring program was conditionally approved by EPA in a letter dated July 28, 2006.

2.4.2.2 GAC Performance Monitoring

In addition to the effluent monitoring, samples are collected monthly from the influent and the effluent from each adsorber and analyzed for PCP. This information is used to evaluate PCP breakthrough and plan for GAC change-out.

2.5 Fish Hatchery Wells

Groundwater samples were collected from all four of the fish hatchery wells in September 2006 and were analyzed for PCP and the PAH compounds in Table 6. The locations of the fish hatchery wells are shown on Figure 2.

2.6 MDNR Well #11016

A monitoring well not associated with the Site and was identified north of the BNSF railroad tracks and downgradient of a former bulk petroleum storage facility. The location of this well is shown on Figure 2. An "oily film" was reported to be on the surface of the water in the well. Cass County staff apparently monitor the water level in this well periodically. This well was inspected by Barr staff on March 29, 2006 and a MDNR Well Inspection report was submitted to EPA on June 13, 2006.

An oil/water interface probe did not identify floating oil, but an oil film/petroleum odor was present on the probe upon retrieval. Measured water elevations at this location are consistent with contoured elevations expected for this area based on the water elevations measured at OU1. Groundwater samples were collected from this well during the September and December 2006 sampling events and analyzed for PCP and PAHs in Table 6. A sample was also sent for fingerprint analysis to attempt to identify the type of petroleum product that is present in the well. An additional sample was collected in December 2006 and analyzed for PCP.

2.7 Product Monitoring and Collection Activities

Floating product monitoring and collection activities are described in the Free Product Recovery/Reuse Plan, April 1993. Monitoring and collection activities were conducted on September 22, 2006. Product level was measured with an interface probe and a disposable bailer was used to recover product from the various product recovery wells. The product recovery activities are summarized in the following table:

Well ID	Product Level [feet below TOR]		Groundwater Level [feet below TOR]		Product Thickness [feet]		Recovered Product [Liters]
	Initial	Final	Initial	Final	Initial	Final	
OU3 – City Dump Pit Area							
W2105	19.50	20.45	<24.75	20.50	5.25	0.05	3.0
W2104	None	NA	NA	NA	NA	NA	NA
W2103	None	NA	NA	NA	NA	NA	NA
W2102	None	NA	NA	NA	NA	NA	NA
W2504	8.02	---	8.20	---	0.18	---	0
2401	17.35	17.43	18.15	17.44	0.08	0.01	17.6

Well ID	Product Level [feet below TOR]		Groundwater Level [feet below TOR]		Product Thickness [feet]		Recovered Product [Liters]
	Initial	Final	Initial	Final	Initial	Final	
S2401	10.18	10.19	10.22	10.20	0.04	0.01	2.7
S2402	7.98	---	8.01	---	0.03	---	0
S2403	None	NA	NA	NA	NA	NA	NA
OU1 – Treating Facility Area							
SO401	None	NA	NA	NA	NA	NA	NA
SO402	None	NA	NA	NA	NA	NA	NA
SO403	None	NA	NA	NA	NA	NA	NA
SO405	None	NA	NA	NA	NA	NA	NA
W118	17.75	17.89	18.02	17.91	0.27	0.02	0.23
Total							**23.5 (6.2 gallons)**

TOR – top of riser --- No measurement

NA – Not Applicable (i.e., no product present). These monitoring points are included based on previous findings.

Recovered product was placed in the accumulation tank at the water treatment building located at OU1. A total of approximately 156 gallons of floating product have been collected over the 12-year period since product recovery began.

3.0 Monitoring Results

3.1 Groundwater Elevations

Groundwater elevations measured at each operable unit are summarized in Table 8. Groundwater elevations in the surficial and lower aquifers are consistent with those observed in the past. Figures depicting the groundwater elevations, contours and approximate extent of the hydraulic capture zones are presented in the Hydraulic Capture Zone Report and are not repeated here.

The groundwater containment system capture zones for OU1 and OU3, as interpreted from the piezometric surface from the GW Contour software (Waterloo Hydrogeologic, 2005) using the 2006 groundwater elevation data, meet the intent of the approved response actions. The capture zone developed by the extraction wells at OU1 encompasses the entire width of the contaminant plume as documented in the Hydraulic Capture Zone Report. Contaminant concentration at stations east of the extraction wells continue to show decreasing concentrations over time. The primary contaminant source at OU1 is being captured. The capture zone developed by the extraction wells at OU3 encompasses the entire contaminant plume.

The vertical gradient in the upper aquifer near the OU1 pump out system is downward, likely due to the influence of the pump out system. The vertical gradients at OU1 near the channel are upward, likely due to the proximity to the lake. The upward gradients at all paired-well locations at OU3 may be due to pumping from wells with screens near the top of the aquifer, the Fox Creek alignment and wetland as drainage features and the lake.

3.2 Water Quality Monitoring Results

Samples were collected from monitoring wells and surface water stations at the Site and analyzed according to procedures specified in the QAPP, Revision 2. The quality control data are discussed in Appendix A. Laboratory analytical reports are in Appendix B. Analytical data tables provided in this report summarize the parameters and concentrations at each location. Parameters listed with a "<" symbol followed by a value were not detected in the sample at the method detection limit (i.e., the value shown in the table). Estimated values are denoted by the "J" qualifier in the data summary tables.

In addition to the laboratory results, the tables show the following calculated results: total carcinogenic PAHs (∑(cPAH)), and total non-carcinogenic PAHs (∑(nPAH)). These PAH

calculations use the positive PAH results for each sample. It is noted in the report tables that data results qualified with a "b", indicating a potential false positive value, and data reported as "not detected" ("ND) or "<", are not included in the PAH summations.

The following sections summarize the analytical results of samples collected at the Site during 2006.

3.2.1 OU1 – Treating Facility Operable Unit

The results from the analysis of samples collected from monitoring wells screened at the top of the surficial aquifer at OU1 are summarized in Table 9. PAH concentrations in the samples from wells 104, 105, 112, 114 and 115 are below the drinking water criteria (i.e., maximum contaminant level (MCL) or Minnesota Health Risk Level (MN HRL). The PCP concentration in samples from wells 105, 112, 114 and 115 is below the drinking water criterion. The PCP concentration in the sample from well 104 is above the drinking water criterion. It is assumed that PCP and PAH concentrations in samples from 118 would also exceed their respective drinking water criterion.

The results from the analysis of samples collected from monitoring wells screened at the base of the surficial aquifer are summarized in Table 10. PAH concentrations are below the drinking water criteria for all samples from the monitoring wells screened at the base of the surficial aquifer. The PCP concentration is above the drinking water criterion in the samples from wells 212, 215, 218, and 220. The groundwater quality data continue to indicate either a steady or decreasing trend over time at these locations (see Appendix D). The non-carcinogenic PAH concentrations in the sample from well 213 are at somewhat higher concentrations in comparison to previous years, but remain below drinking water criteria.

Table 11 summarizes the results from the analysis of the samples collected from the lower aquifer monitoring wells at OU1. PAH and PCP concentrations are below their respective drinking water criteria in samples from all wells screened in the lower aquifer The laboratory reported a low concentration of PCP in samples from well 302 and 306 (0.14J µg/L and 0.19J µg/L, respectively). These concentrations are J-qualified (i.e., estimated value) because the concentrations are slightly above the method detection limit of 0.13 µg/L and below the method quantitation limit of 0.5 µg/L. The reported concentrations are well below the drinking water criterion and may be the result of contamination during sample collection or laboratory analysis.

Water quality results and concentration contours are plotted on Figures 3 (PCP) and 4 (naphthalene). The concentration contours are comparable to previous results, and indicate the remediation systems performed adequately in 2006.

The results from the PCP analysis of surface water samples from the north and south ends of the channel connecting Cass Lake and Pike Bay in September 2006 are summarized in Table 12. PCP was not detected (<0.13 µg/l) in either surface water sample.

Table 13 summarizes the ∑cPAH, ∑nPAH and PCP concentrations at each monitoring station over time. The September 2006 data are consistent with the trend in previous results, as shown on the plots of concentration versus time in Appendix D. The graphs in Appendix D use open markers labeled 'Not Detected' if the parameter was not detected at or above the method quantitation limit.

The 2006 monitoring program included additional monitoring of benzene, toluene, ethyl benzene and xylene, DRO, and PCDD/PCDF at monitoring wells 212, 213 and 220 and extended list PAHs at monitoring wells 215 and 220. The analytical results are summarized in Table 14. The reported concentrations are below the respective intervention limits specified for the additional parameters by EPA in the August 15, 2005 letter with the exception of DRO at well 213. Well 213 is approximately 25 feet from extraction well 408 and is within the capture zone of the OU1 extraction system. The PCP concentration in both samples from well 212 and one of two samples from well 220 exceeded the intervention limit. The PCP concentration in the samples from well 220 dropped from 7.1 µg/L in the September sample to 0.31j µg/L in the December, which is below the intervention limit of 5.5 µg/L. The anthracene concentration in the sample from 220 was slightly above the intervention limit.

3.2.2 OU2 – Containment Vault Operable Unit

The results from the analysis of samples collected from the containment vault monitoring wells are summarized in Table 15. PCP and cPAH compounds were not detected in the samples. Trace concentrations of non-carcinogenic PAH compounds were detected at low concentrations and the concentrations are J-qualified because the concentrations are slightly above the method detection limit and below the method quantitation limit. Concentrations detected in the sample from upgradient well W124 were equivalent to the concentrations detected in the samples from the downgradient wells. The detected concentrations are orders-of-magnitude below drinking water criteria. The ∑cPAH, ∑nPAH and PCP in each well over time are shown in Table 16. Typical results

are at or below the detection limits, and there is no indication of a trend of increasing concentrations in the samples from any of the wells.

3.2.3 OU3 – City Dump Pit Operable Unit

The results from the analysis of samples collected in 2006 from the monitoring wells screened in the surficial aquifer at OU3 are summarized in Table 17. Concentrations in samples collected from groundwater monitoring wells screened in the surficial aquifer are below their respective drinking water criteria except at wells 2128 and 2106. The PCP concentration in the sample from well 2128 is above the drinking water criterion. Well 2128 is within the capture zone of the OU3 extraction system. Well 2106 is located in the center of the 3 extraction wells, was in the product recovery program and was added as a groundwater quality monitoring well in 2006 at the request of EPA. This well is expected to define the upper limit of contaminant concentrations at OU3. Due to an oversight during sample collection, the sample from 2106 was not analyzed for dioxins. Well 2106 will be analyzed for dioxins in 2007. It is assumed that PCP and PAH concentrations in samples from 2102, 2103, 2104 and 2105 would also exceed their respective drinking water criterion. These wells are located within the capture zone of the OU3 extraction system.

Results from the analysis of samples collected from wells screened at the base of the surficial aquifer at OU3 (wells 2233, 2234 and 2236) are summarized in Table 18. PCP and PAH compounds were not detected in the samples from wells 2233 and 2234. PCP and carcinogenic PAH compounds were not detected in the samples collected from well 2236. Trace concentrations of non-carcinogenic PAHs were detected in the sample from well 2236 at concentrations very near the method detection limit. The reported concentrations are J-qualified because the concentrations are slightly above the method detection limit and below the method quantitation limit. The reported concentrations are orders-of-magnitude below drinking water criteria.

Table 19 summarizes the results from the analysis of samples collected from wells screened in the lower aquifer at OU3. Carcinogenic PAH compounds and PCP were detected in the sample from well 2301, which is located up-gradient at OU3 but the concentrations are below respective drinking water criteria. With the exception of chrysene, the reported concentrations are J-qualified because the concentrations are slightly above the respective method detection limit and below the respective method quantitation limit.

Non-carcinogenic PAH compounds were detected in samples from wells 2335 and 2336, and a trace concentration of PCP was detected (at 0.14J µg/L) in the sample from well 2336. The detected

concentrations are well below the drinking water criteria. PCP and PAH compounds were not detected in samples from 2325, 2326, 2329, and 2333.

Water quality results and concentration contours are plotted on Figures 5 (PCP) and 6 (naphthalene).

Table 20 summarizes the ∑cPAH, ∑nPAH and PCP concentrations in each well versus time. The results from 2006 are consistent with historical results, as shown on the plots of concentration versus time in Appendix D.

The 2006 monitoring program included additional monitoring for benzene, toluene, ethyl benzene and xylene, DRO, and PCDD/PCDF at monitoring wells 2128, 2233, 2236 and 2336 and extended list PAHs at 2128. The analytical results are summarized in Table 21. Most additional parameters were not detected in the groundwater samples and when detected, the detected concentrations are well below the intervention limits for the additional parameters. The PCP concentrations in samples from well 2128 are above the intervention limit, but the PCP concentration dropped from 24 µg/L in the September sample to 6.5 µg/L, which is slightly above the intervention limit of 5.5 µg/L.

3.2.4 OU1 and OU3 Extraction Wells

The results from the analysis of the samples collected from the extraction wells at OU1 and OU3 are summarized in Table 22. Table 23 summarizes the PCP concentrations in extraction well samples over time. The 2006 water quality data are consistent with previous results, as shown by the plots of concentration versus time in Appendix D.

The 2006 monitoring program included additional monitoring for extended list PAH compounds at extraction well 409. The analytical results are in Table 24. 5-nitroacenaphthene was the only extended list PAH that was detected. The detected concentration was 0.13 µg/L. This compound has a relative potency factor of 0.02, and the resulting benzo(a)pyrene equivalency (ND = 0) is orders of magnitude below the drinking water criterion for benzo(a)pyrene.

3.2.5 Groundwater Treatment System

The results from analysis of samples collected at the groundwater treatment system are summarized in Tables 25 through 26. Influent PCP concentrations ranged from 1,700 to 4,700 µg/L with an average concentration of approximately 2,300 µg/L. The GAC performance monitoring data is summarized in Table 25. Influent to the carbon treatment system was analyzed for

hexachlorodibenzo-p-dioxin (HxCDD) in June, and HxCDD was not detected at a detection limit of 0.00028 µg/L.

Monitoring of the effluent indicates that all parameters are below the respective effluent limitations specified for the treatment system (Tables 25 and 26). The arsenic, chromium and copper concentrations are well below the effluent limitations and are within the range of concentrations reported for domestic wells in Cass County[4]. Chromium was detected in one of four samples. Benzene, toluene, ethyl benzene and xylene were not detected in any effluent sample. DRO was detected in one of four samples at a concentration very near the method detection limit and orders of magnitude below the effluent limit.

Flow rates and effluent pH were measured continuously at the treatment system effluent throughout the year. The monthly volume and effluent pH data are presented in Tables 27 and 28, respectively.

The flow rate and concentration data were used to estimate the mass of PCP and PAHs removed by the treatment system. The annual mass removed was relatively high for the first few years of operation, then declined and has remained fairly steady since about 1991. The estimated mass removed in 2006 is shown below:

Water Volume		PCP		PAHs	
2006 [10^6 gallons]	Historical Total [10^6 gallons]	2006 [kg]	Historical Total [kg]	2006 [kg]	Historical Total [kg]
52.7	1,086	454	11,520	260	4134

3.2.6 Fish Hatchery Wells

The results from the analysis of the samples collected from the fish hatchery's four wells are summarized in Table 29. None of the monitoring parameters (including PCP) were detected in these samples. These analytical results are consistent with previous data (Table 30).

[4] MPCA Baseline Data Set (1992 – 1996), Ground Water Monitoring and Assessment Program (GWMAP), http://www.pca.state.mn.us/water/groundwater/gwmap/gwbaseline.html

3.2.7 MDNR Well #11016

The results from the analysis of the samples collected from the well identified as DNR #11016 are summarized in Table 31. A sample was shipped to Friedman and Bruya for fingerprint analysis to attempt to identify the parent material responsible for the oily appearance on the groundwater surface in this well. The parent material could not be identified due to insufficient material being present in the groundwater sample, even after attempting to concentrate the material.

Four PAH compounds (i.e., acenaphthylene, phenanthrene, anthracene and pyrene) were detected in the sample at 0.012J, 0.26, 0.11, and 0.027 µg/L, respectively. These detected concentrations are orders-of magnitude below drinking water criteria.

PCP was reported at a concentration of 12 µg/L in the September 2006 groundwater sample from this well. It was noted that this sample was shipped to the laboratory in the same cooler as the samples from the extraction wells, which contain the highest PCP concentrations, and were analyzed in the same batch as the extraction well samples. Due to the potential for cross contamination during shipping and laboratory analysis, the well was resampled in December and the sample was analyzed for PCP. PCP was not detected in the December sample at a detection limit of 0.13 µg/L. Therefore, the detected concentration of 12 µg/L is thought to be related to sampling and/or analytical cross-contamination. An additional sample will be collected from MDNR Well #11016 and analyzed for PCP and PAHs to confirm this conclusion.

3.3 Vault Inspection

The containment vault was inspected on May 12 and November 9, 2006. Copies of the completed vault inspection forms are in Appendix C. The inspections did not identify any deficiencies.

3.3.1 Run-On and Runoff Control Systems

The run-on and runoff control systems were clear of debris. The systems contained adequate vegetation and no standing water or erosion was present. No deficiencies of the systems were noted.

3.3.2 Leachate Collection and Leak Detection Systems

Leachate was present in the leachate collection manhole (LCM) and leak detection manhole (LDM). The leachate elevations were recorded during the vault inspections and are summarized in Table 34. The LCM and LDM are covered and no damage to either manhole was noted. Vault dewatering activities are described in Section 3.4.

3.3.3 Benchmarks and Wells

The monitoring wells, benchmarks and protective posts were not damaged and did not show signs of deterioration. Benchmarks were surveyed on September 8, 2006. The elevations are listed in Table 33 and are consistent with previous measurements. No settling of the vault contents is indicated by the elevation data.

The monitoring wells and protective posts were not damaged. The metal caps are in place and locked. No deficiencies were identified.

3.3.4 Security System

The chain link fence and vehicle gate were not damaged. The gate is locked when not attended. No deficiencies in the security system were identified.

3.3.5 Corrective Actions

The inspections did not identify any deficiencies. No corrective actions were necessary in this time period.

3.4 Vault Dewatering Activities

After vault closure in 1987, water levels indicated that the lower 14 feet of soil in the vault was water-saturated. This soil is continuing to release pore water and this water continues to accumulate at a slow rate in the collection system.

Vault dewatering activities were conducted in November 2006. Approximately 7,100 gallons of water were removed from the vault in accordance with the approved leachate disposal plan. The water was pumped to the groundwater treatment system. Flow meter readings and leachate elevations for this event are summarized in Table 36. The volume of leachate removed from the vault since the vault was closed in 1987 is shown in the following table. The volume of water removed from the vault continues to decrease with time.

Year	Volume [gallons]
1987 – 1988	1,216,000
1992	164,000
2001	129,500

Year	Volume [gallons]
2002	27,500
2003	17,100
2004	10,500
2005	10,700
2006	7,100
Total	1,582,400

Leachate elevations recorded over time are plotted on Figure 7. Each dewatering event is marked by a rapid lowering of the water level in the leachate collection system. The water levels show a rapid recovery period following dewatering followed by a slow, steady increase in water level. The rapid recovery is attributed to water within the drainage layer flowing to the collection system sump. The slow, steady increase is attributed to continued drainage of pore water from the previously water-saturated soils.

Leachate levels should continue to be monitored and leachate should continue to be removed from the vault.

4.0 Summary

Monitoring at the Site in 2006 was completed in accordance with the requirements of the Orders and monitoring plans listed in Section 2.0. Any exceptions are described in this report. The monitoring results are summarized as follows:

- PCP and PAHs are the indicator chemicals from former operations at the Site.

- PCP and PAH concentrations in samples collected from wells screened in the upper aquifer and located near the channel continue to show decreasing trends with the exception of well 213 which is located near extraction well 408. PCP was not detected in the sample from well 213 and PAH concentrations meet drinking water criteria. PAH and PCP concentrations within the mapped contaminant plume continue to show varying concentrations.

- Intervention limits established for dioxin/furans, benzene, toluene, ethyl benzene, xylene, and benzo(a)pyrene were not exceeded at any of the monitoring wells. The intervention limit for PCP was exceeded in samples from wells 212 and 220 at OU1 and 2128 at OU3. The PCP concentration in the December sample from well 220 (0.13 j µg/L) did not exceed the intervention limit. The intervention limit for anthracene was exceeded in samples from well 220.

- Extended-list PAHs were not detected in samples from the 3 monitoring wells that EPA specified for analysis. Only one extended-list PAH compound (5-nitroanthracene) was detected in the sample from extraction well 409. Extraction well 409 is located in the middle of the OU1 extraction system and samples from this well contain the highest PAH concentrations at OU1.

- PCP and PAH concentrations in all samples from the lower aquifer are below drinking water criteria. Only trace concentrations of PCP and PAHs were detected in samples from some of the wells. Most detected concentrations were estimated (J-qualified) because the concentrations were below the method quantitation limit but above the method detection limit.

- PCP was not detected in the surface water samples collected from the channel connecting Cass Lake and Pike Bay.

- PCP and carcinogenic PAHs were not detected in any vault monitoring well sample during 2006. Only trace concentrations of non-carcinogenic PAHs were detected in the samples from the vault monitoring wells. The concentrations are orders of magnitude below drinking water criteria and are consistent with upgradient water quality data.

- PCP and PAHs were not detected in samples from the fish hatchery wells.

- The groundwater treatment system effectively removed PCP and PAH compounds from the extracted groundwater at the Site. Effluent monitoring data demonstrate no exceedances of effluent limitation. Arsenic, copper and chromium concentrations were detected at concentrations typical of shallow groundwater. Benzene, toluene, ethyl benzene and xylene were not detected in the effluent samples and DRO was detected in one of four samples at a concentration very near the method detection limit and well below the effluent limit.

- The carbon treatment system has removed approximately 11,520 kg of PCP and 4,130 kg of PAH compounds from approximately 1.1 billion gallons of water over its operational lifetime.

- A total of approximately 156 gallons of product have been recovered over a 12-year period, including 6.2 gallons in 2006.

- Approximately 7,100 gallons of water were removed from the vault in 2006, bringing the total volume removed to approximately 1,582,000 gallons.

- Concentrations of PCP and anthracene exceed intervention limits for two of the three down-gradient compliance wells for OU1 as defined by the US EPA in 2005. The extraction wells continue to remove water with relatively high concentrations of PCP and PAH compounds. Concentrations initially dropped off after the first several years of system operation (circa. 1987-1990) for the OU1 and OU3 extraction systems; however, since then, the concentrations have remained stable at around 1000 to 9000 µg/L for many of the wells, indicating that a significant amount of contaminant source material remains. The PCP concentrations in down-gradient monitoring wells have continued to decrease since the extraction system began operating, indicating that capture of contamination in the primary source area is being achieved.

5.0 Recommendations

1. Continue operating the groundwater extraction systems and groundwater treatment system in accordance with the Order, the MDNR water appropriation permit, the revised effluent monitoring plan, and the recommended 2007 monitoring plan (Section 6).

2. Continue monitoring water levels and water quality in accordance with the recommended 2007 monitoring plan (Section 6).

3. Maintain the extraction and groundwater treatment system components (i.e., pumps, valves, piping, flow meters) as necessary according to the *Operation and Maintenance Plan, St. Regis Paper Company Site, Cass Lake, Minnesota*, dated March, 1995, or the updated plan currently under development.

4. Continue monitoring and recovering product as described in the Free Product Recovery/Reuse Plan, April 1993.

5. Periodically pump water from the vault as it accumulates in the manholes. Record water levels during each vault inspection.

6. A follow-up sample should be collected from MDNR Well #11016 to confirm the conclusion that the September 2006 sample was contaminated during sample collection or laboratory analysis. This sample should be analyzed for PAH compounds using EPA method 8270-SIM and PCP using EPA method 8151. This sample should be shipped and analyzed with other samples that are expected to be relatively free of contaminants.

6.0 Monitoring Plan for 2007

This section presents the 2007 monitoring plan for monitoring activities at the St. Regis Paper Company Site. The monitoring plan will be reviewed and may be modified, as appropriate, in future annual reports.

6.1 Monitoring Activities

6.1.1 Capture Zone Confirmation

The OU1 and OU3 groundwater extraction systems will continue to be operated as in previous years. The extraction system maintenance program, monitoring of extraction well performance and confirmation of the capture zone will be continued as detailed in the October 28, 2005 letter to EPA (summarized below).

6.1.1.1 Extraction System Maintenance Plan

International Paper will update the maintenance plan from the March 1995, Operating and Maintenance Plan to identify procedures to maintain the effectiveness of the extraction systems including well screen maintenance, pump maintenance or replacement, and pipe cleaning. The updated Extraction System Maintenance Plan will identify an optimal extraction rate for each extraction well or group of wells and allowable deviations from the optimal extraction rates (See letter to EPA date October 28, 2005).

Extraction well performance will be evaluated in the quarterly progress reports. This will include maintenance activities conducted during the quarter; monthly average extraction rates, water levels, and pressure gage readings for the appropriate monitoring points; and maintenance activities anticipated for the next quarter. Overall extraction well performance will continue to be summarized in each annual report.

EPA also requested that monthly rainfall data be reported. As was done in 2006, rainfall data will be downloaded from http://climate.umn.edu/HIDradius/radius.asp; Station: 211370 Cass Lake and included in the appropriate quarterly reports and in the annual report.

6.1.1.2 Hydraulic Capture Zone Monitoring

Water levels will be measured in the Site-wide network of piezometers and monitoring wells in the spring and fall. This information will be summarized in the 2007 annual report. Groundwater

elevation data at the monitoring points will be reviewed based on plots of previous trends and comparisons to nearby data points. Anomalous data will not be used in the capture zone analysis and the rationale for any exclusions will be provided on the data summary table in the annual report. Water levels will be used to develop maps of piezometric surface contours and estimated hydraulic capture zones, which along with the MODFLOW model (page 11); will be the basis for maps of piezometric surface contours and hydraulic capture zones included in the annual report.

The GW Contour software package (Waterloo Hydrogeologic, 2005) will be used to generate groundwater elevation contour maps for the surficial aquifer and lower aquifer using data from each round of water level measurements. GW Contour is a data interpolation and visualization tool that is used to create two-dimensional groundwater data models. A variety of interpolation schemes is available in GW Contour. The contour maps will be created using a natural neighbor algorithm. GW Contour will also be used to generate flow lines based on contoured head data.

The data input set for the GW Contour software package will be based on the 2007 water level measurements and on information from USGS topographic maps. The Site is part of a large sand plain with numerous lakes and wetlands in close contact with the surficial aquifer. Several of the lakes, including Cass Lake and Wolf Lake to the northwest of the Site, are connected to the Mississippi River, which drains the region. Some of the lakes and wetlands to the west are at elevations above the Mississippi River and connected lakes, and these higher water bodies provide some upgradient control on groundwater flow in the vicinity of the Site. Additional upgradient control on groundwater flow is provided by the recharge area northwest of the City of Cass Lake. Control points used in the GW Contour input files will be based on the regional groundwater flow model and gradients calculated between wells and between wells and lake elevations.

The measured water levels in the extraction wells are not considered to be valid with respect to the contouring of groundwater levels. However, it would also be inappropriate to simply ignore these wells. An algorithm was developed similar to the one described by Subterranean Research (July 2005) in their work on the Site for EPA (see Appendix E, Hydraulic Capture Zone Report, St. Regis Paper Company Site, Revised October 2007). This algorithm, or amendments to the algorithm, will be used to estimate the water elevation at the screen of each extraction well.

Hydraulic capture zones for both the OU1 and OU3 extraction systems will be delineated by starting stream traces nearby and downstream of the extraction wells and using the backward particle tracking

feature in GW Contour to define the traveled path. Flow lines located outside the hydraulic capture zones will be generated using a combination of forward and backward particle tracking.

6.1.2 Containment Vault Postclosure Inspection

The containment vault will be inspected during the second and third quarters of 2007 to evaluate the integrity of the vault components. The visual inspections will be documented on the observation reports. The benchmark elevations will be surveyed during the annual groundwater monitoring event. Leachate will be pumped from the vault to the groundwater treatment system, as needed.

6.1.3 Water Quality Monitoring Plan

Water quality monitoring stations at the Site include monitoring wells, extraction wells, surface water stations, and sample taps for the groundwater treatment system. Water quality sampling stations, with the exception of the sample taps, have been grouped into the following two categories: (1) performance-monitoring stations; and (2) indicator-monitoring stations. Performance-monitoring stations are sampled during even numbered years and the analytical data are used to verify long-term water quality trends and the performance of the remedial actions at the Site. Indicator-monitoring stations are sampled each year and the analytical data are used to evaluate potential changes in water quality trends. The stations and analytical parameters included in the 2007 monitoring plan are summarized in Tables 35 and 36, including quarterly sampling from selected monitoring wells.

6.1.4 Effluent and GAC Performance Monitoring Plan

Groundwater from the OU1 and OU3 extraction systems is treated prior to discharge to the channel connecting Cass Lake and Pike Bay. Vault leachate from OU2 is also pumped to the treatment system, as needed. The treatment system consists of three 20,000 pound granular activated carbon adsorbers connected in series. Sample taps are installed on the influent and effluent of each adsorber. The stations and analytical parameters included in the 2007 effluent and GAC performance monitoring plan are summarized in Table 37.

6.1.5 Fish Tissue Samples

Decisions regarding continued fish tissue monitoring will be based on the conclusions of the Human Health and Ecological Risk Assessment. Should EPA require a fish tissue monitoring program after approval of the Human Health and Ecological Risk Assessment, either this monitoring plan will be

supplemented to include the fish tissue monitoring program, or the required fish tissue monitoring will be conducted under another approved program.

6.2 Product Monitoring and Collection

The stations and frequencies for product monitoring and collection for 2007 are summarized in Table 35. Accumulated product will be recovered after the annual groundwater quality monitoring event.

6.3 Reporting

6.3.1 Quarterly Progress Report

International Paper Company will continue to submit quarterly progress reports to the EPA that summarize the previous quarter's activities and activities anticipated for the following quarter.

Extraction well performance will continued to be evaluated in the quarterly progress reports including maintenance activities conducted during the quarter; monthly average extraction rates, and water levels collected during the quarter, monthly rainfall data; and will describe maintenance activities anticipated for the next quarter.

EPA also requested that monthly rainfall data be reported. Rainfall data will be downloaded from http://climate.umn.edu/HIDradius/radius.asp; Station: 211370 Cass Lake and included in the appropriate quarterly reports and in the annual report.

6.3.2 Annual Report

International Paper Company will submit the 2007 Annual Report to the EPA on or before April 1, 2008. The annual report will summarize the remedial action operations and the monitoring activities conducted at the Site for 2007, and make recommendations for the 2008 monitoring plan. The data summary tables will include the intervention limits and effluent limitations specified in the August 15, 2005 EPA letter.

Water levels from the network of piezometers and monitoring wells will be used to develop maps of piezometric surfaces and hydraulic capture zones. The groundwater elevation at each well will be plotted on each map so the reviewer can compare the contour lines to the measured elevations.

Documents and manifests regarding the handling of spent carbon from the groundwater treatment system will be appended to the annual report.

Tables

Table 1
2006 Annual Monitoring Event Summary
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level (1)
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	
OU1-	Top of Surficial	W104	P		X		X					X
Treating Facility		W105	P		X		X					X
Area		W112	P		X		X					X
		W114	I		X		X					X
		W115	I		X		X					X
		W118	PMC									X
	Bottom of Surficial	W205	P		X		X					X
		W209	P		X		X					X
		W212 (2)	I									X
		W213 (2)	I									X
		W215	I		X		X	X				X
		W217	P		X		X					X
		W218	P		X		X					X
		W219	P		X		X					X
		W220 (2)	I					X				X
		W221	P		X		X					X
		W222										X
		W223										X
	Lower Aquifer	MW3	P		X		X					X
		W302	P		X		X					X
		W306	I		X		X					X
	Pump-out Wells	W401	P			X						X
		W402	P			X						X
		W403	P			X						X
		W404										X
		W405	P			X						X
		W406	P		X		X					X
		W407	P		X		X					X
		W408	I			X						X
		W409	P				X	X				X
		W410	P				X					X
		W411	P		X		X					X
	Observation Wells	W509										X
		W510										X
		W511										X
		W512										X
		W513										X
		W514										X
	Special Observation	SO401	PMC									X
	Wells	SO402										X
		SO403										X
		SO405										X
	Channel	CL-N	I		X							X
		CL-S	I		X							X
		North Staff										X
		RR Staff										X
		South Staff										X
Off-site	Top of Surficial	DNR #11016			X		X					X

Table 1
2006 Annual Monitoring Event Summary
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level (1)
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	
OU2 - Containment Vault Area	Upper Aquifer	W124	I		X		X					X
		W125	I		X		X					X
		W126	I		X		X					X
		W127	P		X		X					X
		W128	I		X		X					X
		W129	I		X		X					X
		W130	I		X		X					X
OU3 - City Dump Pit Area	Top of Surficial	W2102	PMC									X
		W2103	PMC									X
		W2104	PMC									X
		W2105	PMC									X
		W2106	PMC	X		X					x	X
		W2127	I		X		X					X
		W2128 (2)	P					X				X
		W2129	I		X		X					X
		W2134	P		X		X					X
		W2135	I		X		X					X
	Bottom of Surficial	W2233 (2)										X
		W2234	I		X		X					X
		W2236 (2)										X
	Lower Aquifer	W2301	P		X		X					X
		W2325	P		X		X					X
		W2326	P		X		X					X
		W2329	P		X		X					X
		W2333	P		X		X					X
		W2335	I		X		X					X
		W2336 (2)										X
	Pump-out Wells	W2401	P	X		X						X
		W2402	P	X		X						X
		W2403	P	X		X						X
	Scavenger Wells	S2401	PMC									X
		S2402	PMC									X
		S2403	P									X
	Observation Wells	W2501										X
		W2502										X
		W2504										X
		W2505										X
Additional Wells	HatcheryWells	Fish 1			X		X					
		Fish 2			X		X					
		Fish 3			X		X					
		Fish 4	I		X		X					

Table 1
2006 Annual Monitoring Event Summary
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level (1)
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	

Notes:

(1) Water levels will be measured in during the May, June and twice in September.

(2) See Quarterly Sample Program (Table 2)

Category

I - Indicator Monitoring Station (Annual Sampling)

P - Performance Monitoring Station (Bi-annual Sampling)

PMC - Product Monitoring and Collection Station

Table 2
2006 Quarterly Monitoring Event Summary
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	
OU1-	Bottom of Surficial	W212	I		X		X		X	X	X	X
Treating Facility		W213	I		X		X		X	X	X	X
Area		W220	I		X		X		X	X	X	X
OU3 -	Top of Surficial	W2128	P		X		X		X	X	X	X
City Dump Pit	Bottom of Surficial	W2233			X		X		X	X	X	X
Site		W2236			X		X		X	X	X	X
	Lower Aquifer	W2336			X		X		X	X	X	X

Notes:

Quarterly program was initiated in September. Samples were collected in September and December.

Category

I - Indicator Monitoring Station (Annual Sampling)

P - Performance Monitoring Station (Bi-annual Sampling)

PMC - Product Monitoring and Collection Station

Table 3
2006 Monthly Monitoring Event Summary
St. Regis Paper Company and City Dump Pit Sites

	PCP				PAHs	Metals [A]	BETX	DRO	HxCDD	Dioxins/furans
	8151M				8270-SIM	6020; 7195/6010B	8620	8015B	8280	8290
Month	Influent	Primary	Secondary	Effluent	Effluent	Effluent	Effluent	Effluent	Influent	Effluent
January	X	X	X	X	X					
February	X	X	X	X						
March	X	X	X	X						
April	X	X	X	X	X					
May	X	X	X	X						
June	X	X	X	X					X	
July	X	X	X	X						
August	X	X	X	X						
September	X	X	X	X	X	X	X	X		X
October	X	X	X	X	X	X	X	X		X
November	X	X	X	X	X	X	X	X		
December	X	X	X	X	X	X	X	X		

Notes:

The revised effluent monitoring program was initiated in September 2006.

Table 4 - Comprehensive List of Monitoring Wells
St. Regis Paper Company Site

Well Identification	Unique Well ID	Date Installed	Elevations [ft. MSL, NAVD 88]					Screen Dimensions		Construction Materials		Location		Year Abandoned	Reason for Abandonment
			Riser Pipe	Protective Casing	Ground Surface	Top of Screen	Bottom of Screen	Length	Diameter	Casing	Screen	Northing	Easting		
OU1- Treating Facility Area															
Top of Surficial Aquifer															
101		01/26/82	1319.66		1318.1	1305.1	1295.1	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
102		01/27/82	1320.32		1318.6	1301.1	1291.1	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
103		01/27/82	1317.79		1315.4	1190.4	1293.4	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
104		01/27/82	1319.14	1319.64	1316.76	1304.9	1294.9	10	4	Galvanized	Galvanized	5248257.17	379466.64		
105		07/12/84	1306.67	1307.16	1305.2	1300.2	1290.2	10	4	Galvanized	Galvanized	5248324.80	379826.43		
106		01/27/82	1306.46		1305.1	1296.6	1286.6	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
107		01/27/82	1305.83		1304.7	1298.7	1288.7	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
108		01/26/82	1306.12		1304.8	1299.8	1289.8	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
109		01/26/82	1308.50		1307.2	1299.7	1289.7	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
110		01/26/82	1319.55		1318.2	1306.2	1296.2	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
111								10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
112	112	07/15/83	1305.77	1306.41	1304.53	1299.1	1289.1	10	4	Galvanized	Galvanized	5248206.97	379977.50		
113		07/14/83	1304.72		1302.5	1299.5	1289.5	10	4	Galvanized	Galvanized	5248094.00	380010.83	2006	No longer required by monitoring program
114	114	07/14/83	1307.67	1308.18	1305.99	1299.7	1289.7	10	4	Galvanized	Galvanized	5248002.09	379933.88		
115	115	07/12/84	1307.27	1307.71	1305.46	1300.2	1290.2	10	4	Galvanized	Galvanized	5248253.90	380101.53		
116		07/12/84	1306.27		1304.9	1300.4	1290.4	10	4	Galvanized	Galvanized			1987	No longer required by monitoring program
118	118	12/29/84	1320.02	1321.88	1319.51	1306.2	1296.1	10	2	Stainless Steel	Stainless Steel	5248256.62	379323.75		
Botom of Surficial Aquifer															
202		07/11/84	1321.00		1319.1	1291.1	1286.0	5	2	Stainless Steel	Stainless Steel			1987	No longer required by monitoring program
205		07/10/84	1307.95	1307.93	1305.33	1256.4	1251.3	5	2	Stainless Steel	Stainless Steel	5248325.52	379829.73		
209		05/10/85	1311.52	1311.57	1309.25	1271.5	1266.4	5	3	Stainless Steel	Stainless Steel	5248117.27	379582.79		
212	212	11/04/83	1305.94	1306.06	1303.73	1249.7	1244.7	5	2	Stainless Steel	Stainless Steel	5248204.11	379976.44		
213	213	11/03/83	1307.45	1307.77	1304.51	1245.4	1240.6	5	2	Stainless Steel	Stainless Steel	5248095.86	380009.34		
214		11/01/83	1306.03		1303.5	1251.0	1246.0	5	2	Stainless Steel	Stainless Steel			1987	No longer required by monitoring program
215	215	07/12/84	1308.84	1308.86	1306.64	1252.3	1247.2	5	2	Stainless Steel	Stainless Steel	5248256.71	380102.47		
217		11/30/84	1307.56	1307.63	1305.50	1255.6	1249.7	5	2	Stainless Steel	Stainless Steel	5248319.77	380874.95		
218	218	12/29/84	1320.96	1321.98	1319.48	1286.4	1281.3	5	2	Stainless Steel	Stainless Steel	5248253.46	379323.77		
219		07/09/85	1308.45	1308.59	1306.75	1247.4	1306.9	5	2	Stainless Steel	Stainless Steel	5248296.01	380286.53		
220	538484	02/23/94	1305.79	1305.89	1303.71	1240.7	1233.5	10	2	Stainless Steel	Stainless Steel	5248005.76	380087.45		
221	538483	01/05/94	1310.55	1310.66	1308.75	1275.3	1262.8	10	2	Stainless Steel	Stainless Steel	5248463.65	380804.63		
222T	748203	05/15/06	1306.10	---	1303.2	1286.9	1283.9	3	2	Stainless Steel	Black Steel	5248416.70	379741.93		Temporary drive point
223	737662	05/01/06	1333.26	1333.55	1330.6	1271.6	1266.6	5	2	Stainless Steel	Black Steel	5247750.78	379578.74		
Lower Aquifer															
MW3		12/22/36	1324.84	1324.95	1323.16	1223.0	1208.0	15	12	Steel	Bronze	5248325.87	378910.46		2006 Survey coordinates not correct
302	302	02/17/82	1321.98	1322.36	1320.81	1215.3	1205.3	10	4	Galvanized	Galvanized	5248323.17	379139.12		
306		02/18/82	1308.47	1308.95	1307.93	1206.7	1196.7	10	4	Galvanized	Galvanized	5248232.74	379807.03		
Pump-out Wells															
401	161481	11/05/85	1321.51	1321.54	1319.68	1293.8	1283.8	10	6	Black Steel	Stainless Steel	5248244.31	379310.40		
402	161475	11/06/85	1309.33	1309.34	1307.61	1290.0	1263.0	15	6	Black Steel	Stainless Steel	5248143.67	379676.46		
403	161480	11/14/85	1310.82	1310.83	1308.16	1273.1	1258.1	15	6	Black Steel	Stainless Steel	5248235.06	379806.88		
404	161473	11/18/85	1309.13	1309.20	1307.14	1293.1	1276.5	15	6	Black Steel	Stainless Steel	5248205.74	379800.07		
405	161479	10/30/85	1309.85	1309.87	1307.32	1272.1	1257.1	15	6	Black Steel	Stainless Steel	5248144.44	379787.41		
406	161478	11/20/85	1308.64	1308.71	1307.20	1291.1	1276.1	15	6	Black Steel	Stainless Steel	5248084.43	379776.57		
407	161477	11/21/85	1307.64	1307.71	1306.82	1273.1	1258.1	15	6	Black Steel	Stainless Steel	5248058.84	379770.13		
408	161476	11/12/85	1306.16	1306.22	1304.43	1263.4	1243.4	20	6	Black Steel	Stainless Steel	5248102.94	380007.10		
409	161474	11/14/85	1308.33	1308.31	1306.14	1270.7	1255.7	15	6	Black Steel	Stainless Steel	5248174.57	379795.23		
410	161472	11/19/85	1310.84	1310.88	1306.89	1271.7	1256.7	15	6	Black Steel	Stainless Steel	5248114.73	379783.65		
411	435571	08/04/87	1311.45	1311.89	1310.14	1270.8	1255.8	15	6	Black Steel	Stainless Steel	5248264.67	379764.41		

Table 4 - Comprehensive List of Monitoring Wells
St. Regis Paper Company Site

Well Identification	Unique Well ID	Date Installed	Elevations [ft. MSL, NAVD 88]					Screen Dimensions		Construction Materials		Location		Year Abandoned	Reason for Abandonment
			Riser Pipe	Protective Casing	Ground Surface	Top of Screen	Bottom of Screen	Length	Diameter	Casing	Screen	Northing	Easting		
Observation Wells															
501		11/05/86	1308.59	1308.71	1305.2	1302.4	1281.9	20.5	2	Stainless Steel	Stainless Steel	5248220.33	379803.15	2006	Replaced by piezometer 509
502		11/07/86	1307.27	1307.42	1304.1	1301.1	1280.6	20.5	2	Stainless Steel	Stainless Steel	5248190.04	379797.46	2006	Replaced by piezometer 510
503		11/07/86	1308.63	1308.66	1305.1	1302.1	1281.6	20.5	2	Stainless Steel	Stainless Steel	5248159.52	379791.14	2006	Replaced by piezometer 511
504		11/07/86	1309.49	1309.58	1306.1	1302.0	1281.5	20.5	2	Stainless Steel	Stainless Steel	5248129.14	379784.61	2006	Replaced by piezometer 512
505		11/05/86	1308.53	1308.58	1305.2	1302.9	1282.4	20.5	2	Stainless Steel	Stainless Steel	5248099.65	379779.68	2006	Replaced by piezometer 513
506		11/07/86	1307.78	1307.86	1304.3	1301.8	1281.3	20.5	2	Stainless Steel	Stainless Steel	5248071.47	379773.28	2006	Replaced by piezometer 514
507		11/07/86	1306.88	1306.94	1303.2	1300.7	1280.2	20.5	2	Stainless Steel	Stainless Steel	5248156.34	379805.97	2006	Replaced by piezometer 511
508		11/07/86	1307.08	1307.22	1303.7	1300.8	1280.2	20.5	2	Stainless Steel	Stainless Steel	5248126.57	379799.68	2006	Replaced by piezometer 512
509	737663	05/08/06	1310.09	1310.31	1307.4	1267.4	1262.4	5	2	Stainless Steel	Black Steel	5248228.77	379805.72		
510	737664	05/08/06	1308.52	1309.15	1306.1	1267.1	1262.1	5	2	Stainless Steel	Black Steel	5248192.63	379797.85		
511	737665	05/07/06	1309.73	1310.05	1306.5	1266.5	1261.5	5	2	Stainless Steel	Black Steel	5248162.30	379791.90		
512	737666	05/07/06	1309.55	1309.83	1306.0	1261.0	1256.0	5	2	Stainless Steel	Black Steel	5248121.43	379784.59		
513	737667	05/06/06	1308.41	1308.62	1305.7	1266.7	1261.7	5	2	Stainless Steel	Black Steel	5248094.67	379780.57		
514	737668	05/06/06	1309.36	1309.72	1306.4	1269.4	1264.4	5	2	Stainless Steel	Black Steel	5248065.72	379773.26		
Special Observation Wells															
S401	435564	09/18/87	1320.74	1320.92	1319.72	1305.0	1295.0	10	2	Black Steel	Black Steel	5248244.47	379310.10		
S402	435565	09/17/87	1308.53	1309.45	1307.62	1296.8	1286.8	10	2	Black Steel	Black Steel	5248144.03	379676.57		
S403	435566	09/18/87	1309.27	1309.43	1308.32	1303.3	1293.3	10	2	Black Steel	Black Steel	5248235.40	379807.05		
S405	435567	09/18/87	1308.15	1308.33	1307.21	1302.3	1292.3	10	2	Black Steel	Black Steel	5248144.60	379787.75		
OU2 - Vault Area															
Vault Monitoring Wells															
111		01/27/82	1329.41		1327.9	1305.9	1295.9	10	4	Galvanized	Galvanized			1987	Replaced by permanent monitoring wells
121		04/02/86	1324.13		1321.6	1307.0	1396.7	10	2	Stainless Steel	Stainless Steel			1987	Replaced by permanent monitoring wells
122		04/01/86	1331.90		1329.1	1307.4	1287.1	10	2	Stainless Steel	Stainless Steel			1987	Replaced by permanent monitoring wells
123		04/02/86	1335.67		1332.6	1308.8	1298.5	10	2	Stainless Steel	Stainless Steel			1987	Replaced by permanent monitoring wells
124	435556	07/28/87	1332.59	1333.00	1331.07	1311.8	1296.8	15	6	Black Steel	Stainless Steel	5247810.20	378417.34		
125	435555	07/27/87	1332.14	1332.61	1330.26	1312.4	1297.4	15	6	Black Steel	Stainless Steel	5247820.51	378462.16		
126	435554	07/29/87	1331.41	1331.87	1329.52	1307.0	1292.0	15	6	Black Steel	Stainless Steel	5247639.04	378494.14		
127	435573	07/30/87	1328.06	1328.62	1326.36	1306.3	1291.3	15	6	Black Steel	Stainless Steel	5247649.72	378551.45		
128	435572	08/03/87	1325.85	1326.30	1324.04	1303.0	1288.0	15	6	Black Steel	Stainless Steel	5247694.97	378578.35		
129	485416	08/12/92	1328.85	1329.17	1327.03	1310.2	1295.2	15	6	Black Steel	Stainless Steel	5247755.44	378581.58		
130	485417	08/12/92	1334.80	1335.16	1332.90	1311.8	1296.8	15	6	Black Steel	Stainless Steel	5247694.75	378392.35		

Table 4 - Comprehensive List of Monitoring Wells
St. Regis Paper Company Site

Well Identification	Unique Well ID	Date Installed	Elevations [ft. MSL, NAVD 88]					Screen Dimensions		Construction Materials		Location		Year Abandoned	Reason for Abandonment
			Riser Pipe	Protective Casing	Ground Surface	Top of Screen	Bottom of Screen	Length	Diameter	Casing	Screen	Northing	Easting		
OU3 - City Dump Pit Area															
Top of Surifical Aquifer															
2101		11/27/84	1321.79		1319.2	1307.2	1297.2	10	2	Stainless Steel	Stainless Steel			Abandoned	No longer required by monitoring program
2102		11/27/84	1318.79	1318.78	1316.01	1304.3	1284.3	10	2	Stainless Steel	Stainless Steel	5247446.51	379006.99		
2103		11/28/84	1320.28	1320.30	1317.59	1305.8	1295.8	10	2	Stainless Steel	Stainless Steel	5247416.57	378997.94		
2104		11/28/84	1319.48	1319.49	1316.68	1305.9	1295.9	10	2	Stainless Steel	Stainless Steel	5247412.15	378969.27		
2105		01/03/85	1322.90	1323.86	1321.36	1307.2	1297.2	10	2	Stainless Steel	Stainless Steel	5247357.21	378986.31		
2106		01/03/85	1309.76	1310.21	1309.09	1302.0	1292.0	10	2	Stainless Steel	Stainless Steel	5247416.84	379049.81		
2125		02/13/85	1316.90		1315.0	1307.0	1297.0	10.1	2	Stainless Steel	Stainless Steel			Abandoned	No longer required by monitoring program
2126		02/14/85	1319.24		1317.8	1306.3	1296.3	10.2	2	Stainless Steel	Stainless Steel			Abandoned	No longer required by monitoring program
2127		02/19/85	1306.71	1306.72	1303.95	1271.1	1266.1	5.1	2	Stainless Steel	Stainless Steel	5247295.90	379040.90		
2128		02/18/85	1305.08	1306.39	1304.23	1283.1	1278.1	5.1	2	Stainless Steel	Stainless Steel	5247344.42	379081.45		
2129		02/19/85	1307.36	1307.40	1304.03	1294.3	1289.3	5.1	2	Stainless Steel	Stainless Steel	5247292.26	379153.73		
2133		05/09/85	1318.11		1314.7	1303.2	1295.2	10	2	Stainless Steel	Stainless Steel			Abandoned	No longer required by monitoring program
2134		04/21/86	1313.21	1313.33	1310.92	1303.4	1293.4	10	2	Stainless Steel	Stainless Steel	5247433.01	379125.44		
2135		03/25/86	1317.29	1317.38	1314.56	1305.1	1295.1	10	2	Stainless Steel	Stainless Steel	5247435.95	379201.62		
Bottom of Surficial Aquifer															
2201		02/13/85	1321.90		1319.5	1275.5	1270.5	5	2	Stainless Steel	Stainless Steel			Abandoned	No longer required by monitoring program
2226		05/06/85	1319.44		1317.3	1276.3	1271.3	5	2	Stainless Steel	Stainless Steel			Abandoned	No longer required by monitoring program
2233	737669	05/04/06	1319.56	1320.02	1317.0	1283.0	1278.0	5	2	Stainless Steel	Black Steel	5247489.73	379014.49		
2234	194853	02/21/87	1312.97	1313.34	1311.38	1270.5	1265.5	5	2	Stainless Steel	Stainless Steel	5247432.73	379127.90		
2236	737670	05/09/06	1328.87	1329.31	1326.4	1292.4	1287.4	5	2	Stainless Steel	Black Steel	5247344.85	378948.27		
Lower Aquifer Wells															
2301		02/12/85	1323.78	1323.82	1321.65	1250.5	1245.5	5.1	2	Stainless Steel	Stainless Steel	5247542.05	378910.30		
2325		05/07/85	1318.97	1319.17	1316.77	1240.5	1235.5	5	2	Stainless Steel	Stainless Steel	5247464.07	378859.32		
2326		05/04/85	1321.51	1321.54	1319.59	1219.8	1214.8	5	2	Stainless Steel	Stainless Steel	5247360.42	378889.88		
2329	539417	02/22/94	1306.18	1306.55	1304.02	1243.3	1233.3	10	2	Stainless Steel	Stainless Steel	5247298.19	379162.20		
2333		05/09/85	1319.13	1319.20	1318.03	1239.1	1235.1	5	2	Stainless Steel	Stainless Steel	5247490.59	379012.97		
2335	415977	04/26/85	1315.61	1315.48	1313.66	1189.5	1179.5	10	4	Black Steel	Stainless Steel	5247434.32	379197.81		
2336	737671	04/26/85	1328.74	1329.14	1326.2	1231.2	1226.2	5	2	Black Steel	Stainless Steel	5247344.21	378946.67		
Pump-out Wells															
2401	149537	08/07/87	--	1313.40	1311.72	1294.7	1274.7	20	12	Black Steel	Stainless Steel	5247440.78	379028.60		
2402	149548	08/06/87	--	1310.74	1308.87	1292.9	1272.9	20	12	Black Steel	Stainless Steel	5247411.40	379086.14		
2403	149549	08/07/87	--	1308.39	1306.80	1284.9	1264.9	20	12	Black Steel	Stainless Steel	5247390.20	379029.79		
Special Observation Wells															
S2401	435557	08/07/87	--	1313.42	1311.92	1303.7	1295.7	8	24	Black Steel	Galvanized	5247440.91	379029.69		
S2402	435558	08/05/87	--	1310.83	1309.71	1301.2	1293.2	8	24	Black Steel	Galvanized	5247412.53	379086.46		
S2403	435559	08/07/87	--	1307.88	1306.33	1300.8	1292.8	8	24	Black Steel	Galvanized	5247390.45	379030.63		
Observation Wells															
2501	435560	09/15/87	1314.40	1314.59	1313.08	1304.1	1289.1	15	2	Galvanized	Stainless Steel	5247466.37	379029.49		
2502	435561	09/16/87	1310.58	1310.71	1309.79	1306.4	1291.4	15	2	Galvanized	Stainless Steel	5247416.16	379060.02		
2503		09/17/87	1305.28	1305.26	1304.9	1303.1	1288.1	15	2	Galvanized	Stainless Steel	5247367.41	379027.77	2006	Screened across wetland deposit. Replaced by 2505.
2504	435563	09/18/87	1311.45	1312.26	1310.46	1305.4	1290.4	15	2	Galvanized	Stainless Steel	5247415.35	379031.16		
2505	737672	5/3/206	1307.16	1307.59	1304.8	1250.8	1245.8	5	2	Stainless Steel	Black Steel	5247371.99	379026.10		
DNR Well															
11016	435563	--	1323.96	--	1322.1	1301.9	1299.9	2	2	Stainless Steel	Black Steel	5248352.02	379270.03		

Table 5

Summary of Groundwater Extraction Rate and Precipitation
St. Regis Paper Company Site

Month	OU1										OU3			Extraction System [gpm]	Precipitation [inches]
	401 [gpm]	402 [gpm]	403 [gpm]	404 [gpm]	405 [gpm]	406 [gpm]	407 [gpm]	408 [gpm]	409 [gpm]	410 [gpm]	2401 [gpm]	2402 [gpm]	2403 [gpm]		
Jan-06	2.2	4.6	7.1	---	16.5	3.1	4.5	4.4	16.8	5.3	2.0	16.3	8.1	90.6	0.47
Feb-06	2.2	4.7	6.8	---	15.7	3.9	8.7	4.3	16.0	6.7	1.9	16.3	7.1	94.0	0.72
Mar-06	2.1	4.5	6.8	---	16.5	3.3	11.0	4.6	17.2	7.3	2.3	16.1	7.0	98.6	1.48
Apr-06	2.0	3.9	7.0	---	15.9	1.6	10.7	4.5	17.1	6.9	4.2	14.3	6.7	94.8	2.11
May-06	1.7	3.6	6.7	---	15.3	3.5	10.4	4.7	17.2	7.0	2.4	13.6	6.8	92.9	3.31
Jun-06	1.6	3.0	6.9	---	14.8	2.9	10.0	4.6	17.3	6.6	2.3	13.6	6.9	90.5	1.61
Jul-06	0.8	2.4	6.8	---	14.9	1.7	9.1	4.3	17.4	6.8	5.1	12.6	6.8	88.7	1.76
Aug-06	1.5	2.0	6.6	---	14.7	4.9	7.6	4.7	17.2	6.1	5.1	10.7	14.9	96.0	0.62
Sep-06	6.7	4.1	6.7	---	16.2	5.5	9.9	4.4	16.9	6.0	4.9	10.3	20.3	111.8	3.39
Oct-06	5.4	6.1	7.1	---	17.7	7.7	11.1	5.0	16.5	5.9	5.2	12.7	22.9	123.3	2.06
Nov-06	5.6	5.3	7.1	---	17.2	9.8	10.2	5.0	15.7	5.6	4.8	13.8	21.5	121.8	1.02
Dec-06	4.3	4.2	5.8	---	17.4	7.9	8.2	3.9	12.6	4.3	4.2	11.8	20.5	105.2	0.9

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Table 6

Routine Parameters and Method Reporting Limits
St. Regis Paper Company Site and City Dump Pit Site

Analyte	CAS Number	SW-846 Method 8270 [µg/L]		SW-846 Method 8270-SIM [µg/L]	
		Method Reporting Limit	Method Detection Limit (1)	Method Reporting Limit	Method Detection Limit (1)
PAHs					
2-Methylnaphthalene	91-57-6	10	0.239	0.02	0.003
Acenaphthene	83-32-9	10	0.281	0.02	0.002
Acenaphthylene	208-96-8	10	0.236	0.02	0.002
Anthracene	120-12-7	10	0.612	0.02	0.002
Benz[a]anthracene	56-55-3	10	0.591	0.02	0.003
Benzo[a]pyrene	50-32-8	10	0.654	0.02	0.002
Benzo[b]fluoranthene	205-99-2	10	0.584	0.02	0.002
Benzo[ghi]perylene	191-24-2	10	0.812	0.02	0.004
Benzo[k]fluoranthene	207-08-9	10	0.827	0.02	0.002
Chrysene	218-01-9	10	0.787	0.02	0.002
Dibenz[a,h]anthracene	53-70-3	10	0.752	0.02	0.002
Fluoranthene	206-44-0	10	0.652	0.02	0.003
Fluorene	86-73-7	10	0.323	0.02	0.003
Indeno[1,2,3-cd]pyrene	193-39-5	10	0.684	0.02	0.003
Naphthalene	91-20-3	10	0.365	0.02	0.004
Phenanthrene	85-01-8	10	0.482	0.02	0.004
Pyrene	129-00-0	10	0.731	0.02	0.003
Pentachlorophenol	87-86-5	25	2.44	1	0.095
		SW-846 Method 8151 [µg/L]			
Pentachlorophenol	87-86-5	0.5	0.095		

Notes:

CAS - Chemical Abstracts Service

PCDD - polychlorinated dibenzo-*p*-dioxin

PCDF - polychlorinated dibenzofuran

NA - not applicable

(1) Method detection limits are subject to change based on the laboratory's MDL study schedule.

Table 7

Additional Parameters and Method Reporting Limits
St. Regis Paper Company Site and City Dump Pit Site

Analyte	CAS Number	Method Reporting Limit	Method Detection Limit [1]
Extended-list PAHs		**SW-846 Method 8270-SIM [µg/L]**	
Benzo(j)fluoroanthene		0.02	0.0035
Dibenz(a,j)acridine		0.02	0.0029
Dibenz(a,h)acridine		0.02	0.0029
7H-Dibenzo(c,g)carbazole		0.02	0.0013
Dibenzo(a,e)pyrene		0.02	0.0019
Dibenzo(a,h)pyrene		0.02	0.0014
Dibenzo(a,i)pyrene		0.02	0.053
Dibenzo(a,l)pyrene		0.02	0.0015
7,12-Dimethylbenzanthracene		0.02	0.0015
1,6-Dinitropyrene		0.05	0.0076
1,8-Dinitropyrene		0.05	0.0032
3-Methylcholanthrene		0.02	0.0027
5-Methylchrysene		0.02	0.0014
5-Nitroacenaphthene		0.02	0.0021
1-Nitropyrene		0.03	0.0083
6-Nitrochrysene		0.02	0.0015
2-Nitrofluorene		0.02	0.0016
Dioxin/Furans [2]		**SW-846 Method 8290 [pg/L]**	
2378-TCDD	1746-01-6	10.0	3.1
12378-PeCDD	40321-76-4	50.0	9.3
123678-HxCDD	57653-85-7	50.0	6.0
123478-HxCDD	39227-28-6	50.0	10.6
123789-HxCDD	19408-74-3	50.0	18.7
1234678-HpCDD	35822-46-9	50.0	8.1
OCDD	3268-87-9	100.0	38.0
2378-TCDF	51207-31-9	10.0	2.5
12378-PeCDF	57117-41-6	50.0	9.4
23478-PeCDF	57117-31-4	50.0	9.4
123678-HxCDF	57117-44-9	50.0	4.6
123789-HxCDF	72918-21-9	50.0	9.7
123478-HxCDF	70648-26-9	50.0	8.6
234678-HxCDF	60851-34-5	50.0	6.1
1234678-HpCDF	67562-39-4	50.0	4.3
1234789-HpCDF	55673-89-7	50.0	7.7
OCDF	39001-02-0	100.0	46.0
Total tetrachlorinated dioxins	41903-57-5	NA	NA
Total pentachlorinated dioxins	36088-22-9	NA	NA
Total hexachlorinated dioxins	34465-46-8	NA	NA
Total heptachlorinated dioxins	37871-00-4	NA	NA
Total tetrachlorinated furans	30402-14-3	NA	NA
Total pentachlorinated furans	30402-15-4	NA	NA
Total hexachlorinated furans	55684-94-1	NA	NA
Total heptachlorinated furans	38998-75-3	NA	NA
BTEX		**SW-846 Method 8260 [µg/L]**	
Benzene	71-43-2	0.5	0.105
Ethylbenzene	100-41-4	0.5	0.13
Toluene	108-88-3	0.5	0.0975
Xylenes (Total)	1330-20-7	1.0	0.219
DRO		**SW-846 Method 8015M [µg/L]**	
Diesel-Range Organics		50	19

Table 7

Additional Parameters and Method Reporting Limits
St. Regis Paper Company Site and City Dump Pit Site

Analyte	CAS Number	Method Reporting Limit	Method Detection Limit [(1)]
Metals		**SW-846 Method 7195/6010B [µg/L]**	
Arsenic	7440-38-2	0.5	0.1
Chromium, Total	7440-47-3	0.2	0.06
Copper	7440-50-8	0.2	0.2
Hexavalent Chromium (Cr VI)		10	4
Trivalent Chromium (Cr III) (by calc)		n/a	n/a

Notes:

CAS - Chemical Abstracts Service

PCDD - polychlorinated dibenzo-*p*-dioxin

PCDF - polychlorinated dibenzofuran

NA - not applicable

(1) Method detection limits are subject to change based on the laboratory's MDL study schedule.

(2) Method detection limits for dioxin analysis are acutally EDLs per Method 8290. The EDLs are sample specific, therefore, the values shown represent the typical level of sensitivty of the method and are not intended to be absolute.

Table 8
2006 Water Elevations
St. Regis Paper Company Site and City Dump Site

[Elevation datum: NAVD 88]

Monitoring Location	05/16/06		06/13/06		09/01/06		09/21/06	
	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion
OU1 - Treating Facility Area								
W104	1304.59		1304.49		1303.51		1303.47	
W105	1303.40		1303.06		1301.32		1302.46	
W112	1303.32		1302.77		1301.42		1301.79	
W114	1303.62		1302.59		1301.41		1301.78	
W115	1302.85		1301.53		1301.45		1301.13	
W118	Dry		1304.74		1304.11		1303.63	
DNR #11016	1305.21		1304.65*	Anomalous compared to previous & neighboring data	1304.78		1304.59	
W205	1303.52		1303.16		1302.02		1302.31	
W209	1304.18		1303.86		1302.82		1302.89	
W212	1303.34		1302.93		1301.76		1301.95	
W213	1303.26		1299.82 *	Anomalous compared to previous & neighboring data	1301.68		1301.82	
W215	1303.20		1302.83		1301.68		1301.83	
W217	1302.97		1301.62*	Anomalous compared to previous & neighboring data	1301.29		1301.60	
W218	1303.93 *	Anomalous compared to previous & neighboring data	1305.10		1304.12		1304.00	
W219	1303.21		1302.72		1301.56		1301.70	
W220	1303.18		1302.73		1301.66		1301.75	
W221	1303.00		1302.67		1301.37		1301.65	
W222T	1301.88 *	Anomalous compared to neighboring data	1303.53		1302.47		1302.52	
W223	1303.66		1303.52		1302.47		1302.56	
W411	1303.59		1303.24		1302.06		1302.31	
MW3	NM		NM		1306.56		1306.54	
W302	1306.31		1306.70		1306.07		1306.04	
W306	1303.71		1303.46		1302.40		1302.53	
W401	1293.66		1293.80		1303.46		1303.27	
W402	1287.89		1289.79		1295.02		1290.07	
W403	1302.64		1302.22		1303.97		1301.28	
W404	1303.40		1303.05		1301.85		1302.16	
W405	1270.56		1266.93		1269.83		1258.95	
W406	1308.71		1299.56		1297.97		1298.74	
W407	1271.97		1307.71		1300.18		1300.73	
W408	1301.47		1300.92		1299.62		1300.08	
W409	1299.51		1299.07		1297.78		1298.33	

Table 8
2006 Water Elevations
St. Regis Paper Company Site and City Dump Site

[Elevation datum: NAVD 88]

Monitoring Location	05/16/06		06/13/06		09/01/06		09/21/06	
	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion
W410	1299.73		1299.58		1297.61		1299.66	
S401	1305.03		1305.21		1304.10		1304.27	
S402	1303.77		1302.08		1302.31		1302.46	
S403	1305.27		1303.96		1301.39		1302.15	
S405	1303.91		1303.01		1301.32		1301.70	
W509	1303.52		1303.09		1301.90		1302.14	
W510	1303.42		1303.00		1301.83		1302.07	
W511	1303.41		1302.95		1301.78		1302.02	
W512	1303.41		1303.00		1301.83		1302.04	
W513	1303.18		1302.76		1301.57		1301.79	
W514	1303.51		1302.60		1301.89		1302.1	
North Staff	1302.7		1302.4		1301.4		1301.2	
RR Staff	1302.9		1302.5		1301.5		1301.4	
South Staff	1302.8		1302.5		1301.5		1301.32	
OU2 - Containment Vault Area								
W124	1306.79		1307.64		1307.13		1307.06	
W125	1306.91		1307.66		1307.16		1307.05	
W126	1306.53		1306.95		1306.29		1306.39	
W127	1306.62		1306.92		1306.26		1306.30	
W128	1306.48		1306.85		1306.18		1306.19	
W129	1306.52		1306.96		1306.32		1306.25	
W130	1306.75		1307.13		1306.54		1306.67	
OU3 - City Dump Area								
W2102	1304.82		1304.81		1303.87		1303.95	
W2103	1304.68		1304.65		1303.52		1303.77	
W2104	1304.92		1304.93		1304.05		1304.13	
W2105	1304.7*	Not adjusted for oil layer.	1303.93 *	Not adjusted for floating oil layer	1303.79	Not adjusted for floating oil layer		Not equilibrated after oil removal
W2106	1304.39		1304.29		1303.71		1303.38	
W2127	1304.52		1304.46		1303.61		1303.75	
W2128	1304.28		1304.10		1303.34		1303.51	
W2129	1304.07		1303.98		1303.14		1303.30	
W2134	1304.21		1304.02		1303.06		1303.25	
W2135	1304.20		1303.95		1302.96		1303.18	
W2233	1304.83		1304.81		1303.90		1303.98	
W2234	1304.32		1304.25		1303.18		1303.39	
W2236	1304.82		1304.84		1304.06		1304.16	
W2301	1305.27		1305.41		1304.63		1304.75	

Table 8
2006 Water Elevations
St. Regis Paper Company Site and City Dump Site

[Elevation datum: NAVD 88]

Monitoring Location	05/16/06		06/13/06		09/01/06		09/21/06	
	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion	Elevation [ft MSL]	Rationale for Exclusion
W2325	1305.31		1305.46		1304.70		1304.80	
W2326	1305.23		1305.31		1304.58		1304.65	
W2329	1304.31		1304.23		1303.36		1303.42	
W2333	1305.00		1305.06		1304.22		1304.32	
W2335	1304.46		1304.39		1303.53		1303.59	
W2336	1304.91		1304.93		1304.23		1304.28	
W2401	1282.78		1304.18		1295.55		1296.00	
W2403	1284.72		1284.75		1289.43		1289.33	
W2402	1296.55		1296.14		1296.05		1296.13	
S2401	1304.09		1304.12		1303.14		1303.24	
S2403	1303.54		1303.17		1302.91		1303.22	
S2402	1303.74		1303.23		1303.51		1302.85	
W2501	1304.59		1304.59		1303.65		1303.74	
W2502	1304.34		1304.23		1303.25		1303.40	
W2504	1302.84 *	Anomalous compared to previous data	1304.13		1303.29		1303.42	
W2505	1304.48		1304.45		1303.44		1303.59	

* Denotes anomolous data based on pattern review.
NM - Not measured.

Elevation used in surficial aquifer evaluation.
Estimated elevation used in surficial aquifer evaluation
Elevation used in lower aquifer evaluation.

Table 9

Groundwater Quality Data - Shallow Surficial Aquifer
OU1 - Treating Facility Site
St. Regis Paper Company Site

Station ID		W104		W105		W112		W112		W114	
Sample Date		9/16/2006		9/13/2006		9/12/2006		9/12/2006		9/13/2006	
Sample ID		GW-0221		GW-0222		GW-0297		GW-0298		GW-0300	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607991		K0607898		K0607898		K0607898		K0607898	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0041 j	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0056 j	ug/L	0.0054 j	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0044 j	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0041 j	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004	ug/L	0.006 a	ug/L	0.004 a	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0.0032 a	ug/L	5.4E-05 a	ug/L	0	ug/L
2-Methylnaphthalene	--	0.13 U	ug/L	0.011 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L
Naphthalene	300	0.2 U	ug/L	0.031 U	ug/L	0.0066 U	ug/L	0.0068 U	ug/L	0.0078 U	ug/L
Acenaphthylene	--	0.05	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	2	ug/L	0.0031 U	ug/L	0.014 U	ug/L	0.012 U	ug/L	0.016 U	ug/L
Fluorene	300	2.6	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.62	ug/L	0.0042 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L
Anthracene	2000	0.15	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.0086 U	ug/L	0.073	ug/L	0.075 U	ug/L	0.0047 U	ug/L
Pyrene	200	0.0047 U	ug/L	0.006 U	ug/L	0.066	ug/L	0.066 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0049 j	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	**670**	ug/L	0.13 U	ug/L	0.13 U*	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 9

Groundwater Quality Data - Shallow Surficial Aquifer
OU1 - Treating Facility Site
St. Regis Paper Company Site

Station ID		W115	
Sample Date		9/14/2006	
Sample ID		GW-0302	
Lab Name	DWC[1]	Columbia Analytical	
Lab ID		K0607898	
Benzo(a)anthracene	--	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L
2-Methylnaphthalene	--	0.0044 U	ug/L
Naphthalene	300	0.009 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L
Phenanthrene	--	0.0061 U	ug/L
Anthracene	2000	0.0039 U	ug/L
Fluoranthene	300	0.0068 U	ug/L
Pyrene	200	0.0048 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L

Table 10

Groundwater Quality Data - Base of Surficial Aquifer
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W205		W209		W212		W212		W213	
Sample Date		9/13/2006		9/13/2006		9/16/2006		12/6/2006		9/16/2006	
Sample ID		GW-0303		GW-0301		GW-0295		GW-0311		GW-0296	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607898		K0607898		K0607991		K0610719		K0607991	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0042 U	ug/L	0.19	ug/L	0.057	ug/L	0.068 U	ug/L
Naphthalene	300	0.0078 U	ug/L	0.0088 U	ug/L	1.7	ug/L	0.63	ug/L	140	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L	0.0033 U	ug/L	0.0023 U	ug/L	0.11	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0031 U	ug/L	0.035 U	ug/L	0.022	ug/L	7.4	ug/L
Fluorene	300	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	1.1	ug/L
Phenanthrene	--	0.0032 U	ug/L	0.0032 U	ug/L	0.0079 U	ug/L	0.0075	ug/L	0.24	ug/L
Anthracene	2000	0.0039 U	ug/L	0.0039 U	ug/L	0.0079 j	ug/L	0.0047 J	ug/L	0.12	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.012 j	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0079 j	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L	**17**	ug/L	**20**	ug/L	0.13 U	ug/L

Table 10

Groundwater Quality Data - Base of Surficial Aquifer
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W213		W215		W217		W218		W219	
Sample Date		12/6/2006		9/16/2006		9/10/2006		9/16/2006		9/10/2006	
Sample ID		GW-0313		GW-0230		GW-0231		GW-0232		GW-0233	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0610719		K0607991		K0607788		K0607991		K0607788	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.1 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.044	ug/L	0.009 U	ug/L	0.0042 U	ug/L	0.077 U	ug/L	0.037 U	ug/L
Naphthalene	300	140	ug/L	0.26 U	ug/L	0.008 U	ug/L	5.2	ug/L	0.077 U	ug/L
Acenaphthylene	--	0.093	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	6.4	ug/L	0.089	ug/L	0.0031 U	ug/L	0.0032 U	ug/L	0.42	ug/L
Fluorene	300	0.94	ug/L	0.0037 U	ug/L	0.0036 U	ug/L	0.028 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.01 j	ug/L	0.0036 U	ug/L	0.0038 U	ug/L	0.058	ug/L	0.043 U	ug/L
Anthracene	2000	0.23	ug/L	0.015 U	ug/L	0.0047 j	ug/L	0.033 U	ug/L	0.025 U	ug/L
Fluoranthene	300	0.012 j	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.018 j	ug/L	0.052	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.026	ug/L	0.029	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	**13**	ug/L	0.13 U	ug/L	**66**	ug/L	0.13 U	ug/L

Table 10

Groundwater Quality Data - Base of Surficial Aquifer
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W219		W220		W220		W220		W221	
Sample Date		9/10/2006		9/17/2006		9/17/2006		12/6/2006		9/9/2006	
Sample ID		GW-0234		GW-0236		GW-0237		GW-0312		GW-0239	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607788		K0607991		K0607991		K0610719		K0607788	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.095 U	ug/L	0.094 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.027 U	ug/L	0.024 U	ug/L	0.024 U	ug/L	0.026 U	ug/L	0.0042 U	ug/L
Naphthalene	300	0.07 U	ug/L	12	ug/L	11	ug/L	18	ug/L	0.0065 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.38	ug/L	0.027 U	ug/L	0.027 U	ug/L	0.033	ug/L	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.3	ug/L	0.3	ug/L	0.29	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.042 U	ug/L	0.018 U	ug/L	0.017 U	ug/L	0.029	ug/L	0.0032 U	ug/L
Anthracene	2000	0.023 U	ug/L	0.048	ug/L	0.049	ug/L	0.054	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.047	ug/L	0.0054 j	ug/L	0.0059 j	ug/L	0.0068 j	ug/L	0.0047 U	ug/L
Pyrene	200	0.028	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	**7.1**	ug/L	5.2	ug/L	0.31 j	ug/L	0.13 U	ug/L

Table 11

Groundwater Quality Data - Lower Aquifer
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		MW3		W302		W306	
Sample Date		9/10/2006		9/17/2006		9/18/2006	
Sample ID		GW-0240		GW-0241		GW-0242	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607788		K0607991		K0608088	
	--						
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene		0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0091 U	ug/L	0.0067 U	ug/L
Naphthalene	300	0.0065 U	ug/L	0.029 U	ug/L	0.034 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0077 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0072 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.0043 U	ug/L	0.01 U	ug/L	0.0045 U	ug/L
Anthracene	2000	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.0069 j	ug/L	0.0047 U	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.14 j	ug/L	0.19 j	ug/L

Table 12

Surface Water Quality
Cass Lake/Pike Bay Channel
St. Regis Paper Company Site

Station ID		CL-N	CL-S
Sample Date		9/13/2006	9/13/2006
Sample ID	Surface Water	SW-0024	SW-0025
Lab Name	Standard	Columbia Analytical	Columbia Analytical
Lab ID		K0607898	K0607898
Pentachlorophenol	5.5	0.13 U ug/L	0.13 U ug/L

Table 13
Water Quality Data Over Time
OU1 - Treating Facility Area
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L)

Top of Surficial Aquifer

	MW104			MW105			MW112			MW113			MW114			MW115			MW118		
Year	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**	**Σ(cPAH)**	**Σ(nPAH)**	**PCP**
RAL	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010
1986	<0.6	24	670	<0.001	0.056	<5	0.010	0.60	<6	<0.0043	0.048	<5	<0.0043	0.068	<5	<0.0017	0.035	<6	—	—	—
1987	<6	14	1,000	—	—	—	0.012	0.29	<6	6.3	6.6	100	<0.0017	0.063	<6	0.0086	0.050	<6	<1,200	29,000	150,000
1988	<6	61	990	—	—	—	0.009	0.24	<6	0.012	0.058	<6	<0.0017	0.048	<6	0.0025	0.034	<6	<600	51,000	49,000
1989	<10	<10	330	—	—	—	0.030	0.36	<6	<0.0017	0.01	<6	<0.0017	0.031	<6	<0.0017	0.017	<6	360	5,900	46,000
1990	<10	53	820	—	—	—	0.013	0.24	<6	0.0022	0.017	<6	<0.0017	0.011	<6	<0.0017	0.003	<6	470	5,300	54,000
1991	<10	2.0	200	—	—	—	<0.12	0.25	<6	<0.096	1.9	<6	<0.003	0.031	<6	<0.003	0.003	<6	1,500	45,000	60,000
1992	<10	<10	84	—	—	—	<0.006	0.17	<6	0.066	0.8	<6	<0.012	<0.012	<6	<0.006	0.037	<6	—	—	—
1993	<10	16	250			<6	<0.006	0.11	<6	<0.012	0.10	<6	<0.006	0.013	<6	<0.006	0.021	<6	—	—	—
1994	<0.8	20	110	<0.003	0.025	<3	0.019	0.20	<3	<0.2	<0.35	<3	<0.02	0.036	<3	<0.02	0.009	<3	—	—	—
1995	<4	69	590	—	—	—	0.010	0.18	<3	—	—	—	<0.02	0.007	<3	<0.02	0.003	<3	—	—	—
1996	—	—	—	—	—	—	—	—	—	—	—	—	<10	<10	<50	<10	<10	<50	—	—	—
1997	<80	57a	740	—	—	—	<10	<10	<50	—	—	—	<10	<10	<50	<10	<10	<50	—	—	—
1998	—	—	—	—	—	—	—	—	—	—	—	—	<1.0	<1.0	<5j	<1.0	<0.1	<5j	—	—	—
1999	<0.02	18	1,000	<0.02	<0.02	<3	<0.02	0.13	<3	—	—	—	<0.02	<0.02	<3	<0.02	<0.02	<3	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	<0.02	<0.02	<3	<0.02	<0.02	<3	—	—	—
2001	<0.019	23	2,400	<0.02	<0.02	<0.5	<0.019	0.12	<0.5	—	—	—	<0.02	<0.02	<0.5	<0.019	<0.019	<0.5	—	—	—
2002	—	—	—	—	—	—	—	—	—	—	—	—	<0.02	<0.02	<3	<0.021	<0.021	<3.1	—	—	—
2003	0.075	46	3,200	0.46	0.65	<0.50	<0.020	0.19	<0.50	—	—	—	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	—	—	—
2004	—	—	—	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<0.96	<0.020	<0.020	<0.96	—	—	—
2005	0.085	16	310	<0.021	0.079	<0.50	<0.020	0.19	<0.50	—	—	—	<0.021	<0.021	<0.50	<0.022	<0.022	<0.50	—	—	—
2006	ND	5.4	670	ND	ND	<0.13	0.018 a	0.014 a	<0.13 *	—	—	—	ND	ND	<0.13	ND	ND	<0.13	—	—	—

a Estimated value, calculated using some or all values that are estimates.

< Value is non-detect at the method reporting limit.

Shaded cell indicates concentration above response action level (RAL).

Table 13
Water Quality Data Over Time
OU1 - Treating Facility Area
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L)

Base of Surficial Aquifer																					
	MW205			MW209			MW212			MW213			MW215			MW217			MW218		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
RAL	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010
1986	<0.003	0.060	<6	0.14	0.48	<6	47	1500	8900	1700	2600	20000	<0.0017	0.02	<6	<0.0043	0.13	<6	—	—	—
1987	—	—	—	—	—	—	<120	740	4000	1000	4600	12000	<6	59	27000	0.0018	0.052	<6	0.26	11	3000
1988	—	—	—	—	—	—	<6	920	3800	160	2100	4800	<6	63	4400	<0.0017	0.026	<6	<0.0017	8.3	860
1989	—	—	—	—	—	—	<20	380	3500	700	2000	13000	<10	20	2700	<0.0017	0.013	<6	<0.068	13	78
1990	—	—	—	—	—	—	<10	150	5100	19	1100	5800	<10	66	4200	<0.0017	0.005	<6	<0.24	17	570
1991	—	—	—	—	—	—	<100	28	2200	<40	1100	830	<100	22	2800	<0.003	0.004	<6	<0.006	3.4	170
1992	—	—	—	—	—	—	<150	<150	2200	<10	330	300	<75	16	1900	0.0038	0.042	<6	<0.048	0.39	14
1993		0.015	<6	—	—	—	<10	42	2900	<10	250	<10	<10	29a	2200	<0.006	0.003	<6	0.022	0.856	26
1994	<0.12	<0.12	<3	—	—	—	<10	46a	3900	<20	240a	<20	<10	46a	3400	<0.04	0.025	<3	<0.4	0.355	13
1995	—	—	—	—	—	—	<750	<750	2300	<10	150a	<10	<500	<500	1600	<0.02	<0.035	<3	<0.08	0.37	26
1996	—	—	—	—	—	—	<10	27	1300	<10	90	<50	<10	29	1100	—	—	—	—	—	—
1997	—	—	—	—	—	—	<70	13a	950	<10	72a	<50	<100	20a	1200	<10	<10	<50	<10	<10	17j
1998	—	—	—	—	—	—	<4.0	8.2	470	<1.0	44	3j	<7.0	19	700	—	—	—	—	—	—
1999	<0.02	<0.02	<3	<0.02	<0.02	<3	<0.02	2.47	430	<0.02	24.17	<3	<0.02	0.51	680	<0.02	<0.02	<3	<0.02	<0.02	45
2000	—	—	—	—	—	—	<0.02	2.9	60	0.15	494	1900	<0.02	0.59	68	—	—	—	—	—	—
2001	<0.019	<0.019	<0.5	<0.019	<0.019	<0.5	<0.019	3.1	110	0.044	68	<0.5	<0.019	0.58	360	<0.02	<0.02	<0.5	<0.019	<0.19	34
2002	—	—	—	—	—	—	<0.020	1.2	19	0.042	39	<3	0.036	0.59	160	—	—	—	—	—	—
2003	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	<0.020	1.4	45	<0.020	34	<0.50	<0.020	0.36	47	<0.020	<0.020	<0.50	<0.020	0.12	3.6
2004	—	—	—	—	—	—	<0.020	1.9	46	<0.020	24	<0.96	<0.020	0.48	78	—	—	—	—	—	—
2005	<0.020	<0.020	<0.50	<0.022	<0.022	<0.50	<0.020	1.8	46	0.087	210	<0.50	<0.021	0.71	21	<0.020	<0.020	<0.50	<0.020	<0.020	110
2006	ND	ND	<0.13	ND	ND	<0.13	ND	1.9 a	17	ND	150 a	<0.13	ND	0.089	13	ND	0.0047 a	<0.13	ND	5.3 a	66

— No sample collected or analyzed.

a Estimated value, calculated using some or all values that are estimates.

< Value is non-detect at the method reporting limit.

Shaded cell indicates concentration above response action level (RAL).

Table 13
Water Quality Data Over Time
OU1 - Treating Facility Area
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L)

Base of Surficial Aquifer													Lower Aquifer								
	MW219			MW220			MW221			MW411			MW302			MW306			MW3		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
RAL	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010	0.028	0.3	1,010
1986	<0.034	1.2	<6	—	—	—	—	—	—	—	—	—	0.002	0.026	<6	<0.0017	0.004	<6	<0.0017	0.005	<5
1987	<6	8.6	<6	—	—	—	—	—	—	—	—	—	0.005	0.11	<6	0.0044	0.13	<6	0.0036	0.073	<6
1988	<6	9.7	<6	—	—	—	—	—	—	—	—	—	0.13	0.21	<6	0.01	0.05	<6	<0.0017	0.018	<6
1989	<0.068	18	16	—	—	—	—	—	—	—	—	—	0.002	0.091	<6	<0.0017	0.011	<6	<0.0017	0.017	<6
1990	<10	16	<10	—	—	—	—	—	—	—	—	—	0.013	0.070	<6	<0.0017	0.006	<6	0.0022	0.050	<6
1991	<10	8	<10	—	—	—	—	—	—	—	—	—	0.016	0.059	<6	<0.003	0.34	<6	<0.003	0.012	<6
1992	<10	8	<10	—	—	—	—	—	—	—	—	—	0.003	0.24	<6	<0.012	0.016	<6	<0.006	0.050	<6
1993	<0.192	6.21	<6	—	—	—	—	—	—	—	—	—	<0.006	0.017	<6	<0.006	<0.006	<6	<0.003	0.009	<6
1994	<2.4	8.27	<3	<20	527	1,000	<0.4	0.006	<3	—	—	—	<0.08	0.883	<3	0.023	0.022	<3	0.01	0.014	<3
1995	<3.0	7	<3	<200	250a	570	<0.02	<0.035	<3	—	—	—	<0.02	0.059	<3	<0.02	0.018	<3	<0.02	0.048	<3
1996	—	—	—	<10	120	180	—	—	—	—	—	—	—	—	—	<10	<10	<50	—	—	—
1997	<10	8a	<50	<40	81a	200	<10	<10	<50	—	—	—	<10	<10	<50	<10	<10	<50	<10	<10	<50
1998	—	—	—	<12	42	98	—	—	—	—	—	—	—	—	—	<1.0	<1.0	<5j	—	—	—
1999	<0.02	0.472	<3	<0.02	11.55	72	<0.02	<0.02	<3	—	—	350	<0.02	<0.02	<3	<0.02	0.08	<3	<0.02	<0.02	<3
2000	<0.02	0.68	<3	0.03	20	73	—	—	—	—	—	—	—	—	—	<0.02	<0.02	<3	—	—	—
2001	<0.02	0.58	<0.5	0.044	18	24	<0.02	<0.02	<0.5	—	—	14	<0.02	<0.02	<0.5	<0.02	<0.02	<0.5	<0.02	<0.02	<0.5
2002	<0.021	0.72	<3.1	0.037	16	4.5	—	—	—	—	—	—	—	—	—	<0.021	0.023	<0.5	—	—	—
2003	<0.020	0.49	<0.50	0.03	7.9	51	<0.020	<0.020	<0.50	<0.020	<0.020	12	<0.020	0.042	<0.50	<0.020	0.031	<0.50	<0.020	<0.020	<0.50
2004	0.045	0.82	<0.96	<0.020	15	8	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<0.96	—	—	—
2005	<0.020	0.57 a	<0.50	0.037	16	9.6	0.025	<0.020	<0.50	<0.023	<0.023	17	<0.024	0.022	<0.50	<0.021	<0.021	<0.50	<0.021	<0.021	<0.50
2006	ND	0.51	<0.13	ND	12 a	7.1	ND	ND	<0.13	ND	0.0042 a	31	ND	0.0069 a	0.14 j	ND	ND	0.19 j	ND	ND	<0.13

— No sample collected or analyzed.

a Estimated value, calculated using some or all values that are estimates.

< Value is non-detect at the method reporting limit.

Shaded cell indicates concentration above response action level (RAL).

Table 13
Water Quality Data Over Time
OU1 - Treating Facility Area
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L)

Surface Water						
	CL-N			CL-S		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
SWQ			5.5			5.5
1986	0.003	0.009	<5	<0.001	0.0015	<5
1987	—	—	<6	—	—	<6
1988	—	—	<10	—	—	<10
1989	—	—	<6	—	—	<6
1990	<0.003	0.006	<6	<0.001	0.004	<6
1991	—	—	<10	—	—	<10
1992	—	—	<10	—	—	<10
1993	—	—	<10	—	—	<10
1994	—	—	<3	—	—	<3
1995	—	—	<3	—	—	<3
1996	—	—	<50	—	—	<50
1997	—	—	<50	—	—	<50
1998	—	—	<5j	—	—	<5j
1999	—	—	<0.5	—	—	<0.5
2000	—	—	<0.5	—	—	2.2
2001	—	—	<0.5	—	—	<0.5
2002	—	—	<0.5	—	—	<0.5
2003	—	—	<0.5	—	—	<0.5
2004	—	—	<0.6	—	—	<0.6
2005	—	—	<0.50	—	—	<0.50
2006	—	—	<0.13	—	—	<0.13

— No sample collected or analyzed.

< Value is non-detect at the method reporting limit.

Table 14

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W212		W212		W213		W213		W215	
Sample Date	Intervention	9/16/2006		12/6/2006		9/16/2006		12/6/2006		9/16/2006	
Sample ID	Limits	GW-0295		GW-0311		GW-0296		GW-0313		GW-0230	
Diesel Range Organics	200	100 U	ug/L	94 U	ug/L	**720** AT	ug/L	**740** AT	ug/L		
Benzene	114	0.14 U	ug/L	0.14 U	ug/L	0.14 j	ug/L	0.14 U	ug/L		
Toluene	68	0.14 U	ug/L	0.11 U	ug/L	0.5 U	ug/L	0.38 U	ug/L		
Ethyl benzene	253	0.13 U	ug/L	0.13 U	ug/L	0.9	ug/L	0.89	ug/L		
Xylene m & p	166	0.22 U	ug/L	0.22 U	ug/L	0.46 j	ug/L	0.36 j	ug/L		
Xylene o-	166	0.11 U	ug/L	0.11 U	ug/L	0.51	ug/L	0.49 j	ug/L		
Pentachlorophenol	5.5	**17**	ug/L	**20**	ug/L	0.13 U	ug/L	0.13 U	ug/L		
Benzo(a)pyrene	0.02	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L		
Anthracene	0.035	0.0079 j	ug/L	0.0047 J	ug/L	**0.12**	ug/L	**0.23**	ug/L		
1,6-Dinitropyrene	--									0.0076 U	ug/L
1,8-Dinitropyrene	--									0.0032 U	ug/L
1-Nitropyrene	--									0.0083 U	ug/L
2-Nitrofluorene	--									0.0016 U	ug/L
3-Methylcholanthrene	--									0.0027 U	ug/L
5-Methylchrysene	--									0.0014 U	ug/L
5-Nitroacenaphthene	--									0.0021 U	ug/L
6-Nitrochrysene	--									0.0015 U	ug/L
7,12-Dimethylbenz(a)anthracene	--									0.0015 U	ug/L
7h-Dibenzo(c,g)carbazole	--									0.0013 U	ug/L
Benzo(j)fluoranthene	--									0.0035 U	ug/L
Dibenz(a,h)acridine	--									0.0029 U	ug/L
Dibenz(a,j)acridine	--									0.0029 U	ug/L
Dibenzo(a,e)pyrene	--									0.0019 U	ug/L
Dibenzo(a,h)pyrene	--									0.0014 U	ug/L
Dibenzo(a,i)pyrene	--									0.00053 U	ug/L
Dibenzo(a,l)pyrene	--									0.0015 U	ug/L

Table 14

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W212		W212		W213		W213		W215
Sample Date	Intervention	9/16/2006		12/6/2006		9/16/2006		12/6/2006		9/16/2006
Sample ID	Limits	GW-0295		GW-0311		GW-0296		GW-0313		GW-0230
2,3,7,8-TCDD	0.0038	0.142 U	pg/L	1.098 U	pg/L	0.121 U	pg/L	0.986 U	pg/L	
1,2,3,7,8-PCDD	0.0084	0.277 U	pg/L	0.877 U	pg/L	0.275 U	pg/L	0.865 U	pg/L	
1,2,3,4,7,8-HxCDD	0.1267	0.313 U	pg/L	0.547 U	pg/L	0.176 U	pg/L	0.644 U	pg/L	
1,2,3,6,7,8-HxCDD	0.3800	0.301 U	pg/L	0.493 U	pg/L	0.17 U	pg/L	0.58 U	pg/L	
1,2,3,7,8,9-HxCDD	0.3800	0.297 U	pg/L	0.509 U	pg/L	0.168 U	pg/L	0.599 U	pg/L	
1,2,3,4,6,7,8-HpCDD	7.600	0.919 j	pg/L	6.9 U	pg/L	3.707 j	pg/L	5.122 U	pg/L	
OCDD	380.0	8.551 j	pg/L	57.892 U	pg/L	34.273 j	pg/L	40.492 U	pg/L	
2,3,7,8-TCDF	0.0475	0.266 U	pg/L	1.212 U	pg/L	0.185 U	pg/L	1.212 U	pg/L	
1,2,3,7,8-PCDF	0.3800	0.234 U	pg/L	0.429 U	pg/L	0.158 U	pg/L	0.514 U	pg/L	
2,3,4,7,8-PCDF	0.00475	0.225 U	pg/L	0.401 U	pg/L	0.152 U	pg/L	0.48 U	pg/L	
1,2,3,4,7,8-HxCDF	0.4750	7.652 j	pg/L	0.45 U	pg/L	0.187 U	pg/L	0.465 U	pg/L	
1,2,3,6,7,8-HxCDF	0.1900	1.091 EMPC	pg/L	0.445 U	pg/L	0.196 U	pg/L	0.459 U	pg/L	
1,2,3,7,8,9-HxCDF	0.0633	0.226 U	pg/L	0.531 U	pg/L	0.241 U	pg/L	0.549 U	pg/L	
2,3,4,6,7,8-HxCDF	0.0543	0.196 U	pg/L	0.475 U	pg/L	0.209 U	pg/L	0.49 U	pg/L	
1,2,3,4,6,7,8-HpCDF	38.0000	2.474 j	pg/L	2.332 U	pg/L	0.317 U	pg/L	1.613 U	pg/L	
1,2,3,4,7,8,9-HpCDF	0.9500	0.55 U	pg/L	0.727 U	pg/L	0.445 U	pg/L	0.674 U	pg/L	
OCDF	190.0	0.706 U	pg/L	5.583 U	pg/L	3.556 j	pg/L	3.183 U	pg/L	

Table 14

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W220		W220		W220	
Sample Date	Intervention	9/17/2006		9/17/2006		12/6/2006	
Sample ID	Limits	GW-0236		GW-0237		GW-0312	
Diesel Range Organics	200	150 U	ug/L	150 U	ug/L	150 AT	ug/L
Benzene	114	0.14 U	ug/L	0.14 U	ug/L	0.14 U	ug/L
Toluene	68	0.11 U	ug/L	0.11 U	ug/L	0.11 U	ug/L
Ethyl benzene	253	0.21 j	ug/L	0.16 j	ug/L	0.19 j	ug/L
Xylene m & p	166	0.22 U	ug/L	0.22 U	ug/L	0.22 U	ug/L
Xylene o-	166	0.12 j	ug/L	0.12 j	ug/L	0.11 U	ug/L
Pentachlorophenol	5.5	**7.1**	ug/L	5.2	ug/L	0.31 j	ug/L
Benzo(a)pyrene	0.02	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Anthracene	0.035	**0.048**	ug/L	**0.049**	ug/L	**0.054**	ug/L
1,6-Dinitropyrene	--			0.0071 U	ug/L	0.007 U	ug/L
1,8-Dinitropyrene	--			0.003 U	ug/L	0.003 U	ug/L
1-Nitropyrene	--			0.0078 U	ug/L	0.0077 U	ug/L
2-Nitrofluorene	--			0.0015 U	ug/L	0.0015 U	ug/L
3-Methylcholanthrene	--			0.0025 U	ug/L	0.0025 U	ug/L
5-Methylchrysene	--			0.0013 U	ug/L	0.0013 U	ug/L
5-Nitroacenaphthene	--			0.002 U	ug/L	0.0019 U	ug/L
6-Nitrochrysene	--			0.0014 U	ug/L	0.0014 U	ug/L
7,12-Dimethylbenz(a)anthracene	--			0.0014 U	ug/L	0.0014 U	ug/L
7h-Dibenzo(c,g)carbazole	--			0.0012 U	ug/L	0.0012 U	ug/L
Benzo(j)fluoranthene	--			0.0033 U	ug/L	0.0032 U	ug/L
Dibenz(a,h)acridine	--			0.0027 U	ug/L	0.0027 U	ug/L
Dibenz(a,j)acridine	--			0.0027 U	ug/L	0.0027 U	ug/L
Dibenzo(a,e)pyrene	--			0.0018 U	ug/L	0.0018 U	ug/L
Dibenzo(a,h)pyrene	--			0.0013 U	ug/L	0.0013 U	ug/L
Dibenzo(a,i)pyrene	--			0.0005 U	ug/L	0.00049 U	ug/L
Dibenzo(a,l)pyrene	--			0.0014 U	ug/L	0.0014 U	ug/L

Table 14

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU1 - Treating Facility Area
St. Regis Paper Company Site

Station ID		W220		W220		W220	
Sample Date	Intervention	9/17/2006		9/17/2006		12/6/2006	
Sample ID	Limits	GW-0236		GW-0237		GW-0312	
2,3,7,8-TCDD	0.0038	0.176 U	pg/L	0.18 U	pg/L	1.133 U	pg/L
1,2,3,7,8-PCDD	0.0084	0.336 U	pg/L	0.237 U	pg/L	0.855 U	pg/L
1,2,3,4,7,8-HxCDD	0.1267	0.182 U	pg/L	0.277 U	pg/L	0.728 U	pg/L
1,2,3,6,7,8-HxCDD	0.3800	0.175 U	pg/L	0.267 U	pg/L	0.655 U	pg/L
1,2,3,7,8,9-HxCDD	0.3800	0.173 U	pg/L	0.263 U	pg/L	0.676 U	pg/L
1,2,3,4,6,7,8-HpCDD	7.600	0.204 U	pg/L	0.328 U	pg/L	3.442 U	pg/L
OCDD	380.0	5.036 j	pg/L	5.326 j	pg/L	22.316 U	pg/L
2,3,7,8-TCDF	0.0475	0.197 U	pg/L	0.237 U	pg/L	1.154 U	pg/L
1,2,3,7,8-PCDF	0.3800	0.241 U	pg/L	0.21 U	pg/L	0.451 U	pg/L
2,3,4,7,8-PCDF	0.00475	0.232 U	pg/L	0.202 U	pg/L	0.421 U	pg/L
1,2,3,4,7,8-HxCDF	0.4750	0.288 jEMPC	pg/L	0.217 U	pg/L	0.384 U	pg/L
1,2,3,6,7,8-HxCDF	0.1900	0.185 U	pg/L	0.227 U	pg/L	0.379 U	pg/L
1,2,3,7,8,9-HxCDF	0.0633	0.227 U	pg/L	0.279 U	pg/L	0.453 U	pg/L
2,3,4,6,7,8-HxCDF	0.0543	0.197 U	pg/L	0.242 U	pg/L	0.405 U	pg/L
1,2,3,4,6,7,8-HpCDF	38.0000	0.474 U	pg/L	0.294 U	pg/L	0.518 U	pg/L
1,2,3,4,7,8,9-HpCDF	0.9500	0.666 U	pg/L	0.413 U	pg/L	0.669 U	pg/L
OCDF	190.0	0.579 U	pg/L	0.352 U	pg/L	1.129 U	pg/L

Table 15

Groundwater Quality Data - Surficial Aquifer
OU2 - Containment Vault Area
St. Regis Paper Company Site

Station ID		W124		W125		W126		W127		W128	
Sample Date		9/4/2006		9/4/2006		9/3/2006		9/4/2006		9/3/2006	
Sample ID		GW-0253		GW-0254		GW-0255		GW-0256		GW-0257	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607588		K0607588		K0607588		K0607588		K0607588	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0046 j	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L
Naphthalene	300	0.0081 j	ug/L	0.0065 U	ug/L	0.0066 j	ug/L	0.0065 U	ug/L	0.0065 U	ug/L
Acenaphthylene	--	0.0029 j	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.014 j	ug/L	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.0068 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L
Anthracene	2000	0.0039 U	ug/L	0.009 j	ug/L	0.014 j	ug/L	0.014 j	ug/L	0.017 j	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 15

Groundwater Quality Data - Surficial Aquifer
OU2 - Containment Vault Area
St. Regis Paper Company Site

Station ID		W129		W130	
Sample Date		9/3/2006		9/3/2006	
Sample ID		GW-0258		GW-0259	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical	
Lab ID		K0607588		K0607588	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0042 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0057 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0049 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0055 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0046 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0036 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0039 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0045 U	ug/L
Naphthalene	300	0.01 j	ug/L	0.0078 j	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0025 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0033 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0039 U	ug/L
Phenanthrene	--	0.0032 U	ug/L	0.0084 U	ug/L
Anthracene	2000	0.018 j	ug/L	0.0042 U	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.005 U	ug/L
Pyrene	200	0.0047 U	ug/L	0.005 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0044 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L

Table 16
Groundwater Quality Data Over Time
OU2 - Containment Vault Area
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L)

Surficial Aquifer																					
	MW124			MW125			MW126			MW127			MW128			MW129			MW130		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
1987	0.004	0.026	<6	0.0031	0.024	<6	0.028	0.060	<6	0.005	0.034	<6	0.005	0.028	<6	--	--	--	--	--	--
1988	<0.001	0.054	<6	<0.001	0.013	<6	<0.001	0.012	<6	<0.001	0.017	<6	<0.001	0.014	<6	--	--	--	--	--	--
1989	<0.001	0.007	<6	<0.001	0.013	<6	<0.001	0.015	<6	<0.001	0.006	<6	<0.001	0.010	<6	--	--	--	--	--	--
1990	<0.001	0.015	<6	<0.002	<0.002	<6	<0.001	0.006	<6	<0.001	0.009	<6	<0.001	0.007	<6	--	--	--	--	--	--
1991	<0.003	<0.003	<6	<0.003	<0.003	<6	<0.003	<0.003	<6	<0.003	0.005	<6	<0.003	0.003	<6	--	--	--	--	--	--
1992	<0.003	<0.003	<6	<0.003	0.084	<6	<0.003	0.005	<6	<0.003	0.010	<6	<0.003	0.004	<6	<0.003	0.022	<6	<0.003	<0.003	<6
1993	<0.003	<0.003	<6	<0.003	<0.003	<6	<0.003	<0.003	<6	--	--	--	<0.003	<0.003	<6	<0.003	<0.003	<6	<0.006	<0.006	<6
1994	<0.003	0.004	<3	<0.003	0.005	<3	<0.003	0.009	<3	--	--	--	<0.003	0.033	<3	<0.003	0.003	<3	<0.003	0.004	<3
1995	<0.003	0.004	<3	<0.003	0.006	<3	<0.003	0.025	<3	--	--	--	<0.003	<0.003	<3	<0.003	0.007	<3	<0.003	<0.003	<3
1996	<10	<10	<50	<10	<10	<50	<10	<10	<50	--	--	--	<10	<10	<50	<10	<10	<50	<10	<10	<50
1997	<10	<10	<50	<10	<10	<50	<10	<10	<50	--	--	--	<10	<10	<50	<10	<10	<50	<10	<10	<50
1998	<0.10	<0.10	<0.50	<0.10	<0.10	<0.50	<0.10	<0.10	<5j	--	--	--	<0.10	<0.10	<0.50	<0.10	<0.10	<0.50	<0.10	<0.10	<5j
1999	<0.02	<0.02	<3	<0.02	<0.02	<3	<0.02	<0.02	<3	<0.02	0.02	<3	<0.02	<0.02	<3	<0.02	<0.02	<3	<0.02	<0.02	<3
2000	<0.02	<0.02	<3	<0.02	0.05	<3	<0.02	0.08	<3	<0.02	0.03	<3	<0.02	0.04	<3	<0.02	<0.02	<3	<0.02	<0.02	<3
2001	<0.019	<0.019	<0.5	<0.02	<0.02	<0.5	<0.02	<0.02	<0.5	<0.02	<0.02	<0.5	<0.02	<0.02	<0.5	<0.019	<0.019	<0.5	<0.02	<0.02	<0.5
2002	<0.021	<0.021	<3.1	<0.020	0.023	<3.0	<0.020	0.023	<2.9	<0.020	0.024	<2.9	<0.020	<0.020	<3.1	<0.021	<0.021	<3.1	<0.020	<0.02	<3.0
2003	<0.020	0.021	<0.50	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	<0.020	0.023	<0.50	<0.020	<0.020	<0.50
2004	<0.020	<0.020	<0.96	<0.020	0.079	<0.96	<0.020	0.13	<0.96	<0.020	0.082	<0.97	<0.020	0.082	<0.98	<0.020	0.14	<0.99	<0.020	<0.020	<0.98
2005	<0.021	<0.021	<0.50	<0.021	<0.021	<0.50	<0.021	<0.021	<0.50	<0.022	<0.022	<0.50	<0.022	<0.022	<0.50	<0.021	<0.021	<0.50	<0.022	<0.022	<0.50
2006	ND	0.03 a	<0.13	ND	0.0090 a	<0.13	ND	0.02 a	<0.13	ND	0.014 a	<0.13	ND	0.017 a	<0.13	ND	0.03 a	<0.13	ND	0.0078 a	<0.13

-- No sample collected or analyzed.

ND Not detected at or above the method reporting limit.

< Value is non-detect at the method reporting limit.

a Estimated value, calculated using some or all values that are estimates.

Table 17

Groundwater Quality Data - Top of Surficial Aquifer
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2106		W2106		W2127		W2128		W2128	
Sample Date		9/16/2006		9/16/2006		9/5/2006		9/5/2006		12/5/2006	
Sample ID		GW-0260		GW-0261		GW-0263		GW-0264		GW-0310	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607991		K0607991		K0607730		K0607730		K0610719	
Benzo(a)anthracene	--	0.2 U	ug/L	0.2 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.27 U	ug/L	0.27 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.23 U	ug/L	0.23 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.26 U	ug/L	0.26 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.22 U	ug/L	0.22 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.17 U	ug/L	0.17 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0062 j	ug/L
Dibenz(a,h)anthracene	--	0.18 U	ug/L	0.18 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0044 j	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.2 U	ug/L	0.2 U	ug/L	0.004 U	ug/L	0.095 U	ug/L	0.006 a	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L	0.0031 a	ug/L
2-Methylnaphthalene	--	380	ug/L	330	ug/L	0.0042 U	ug/L	0.61	ug/L	0.035	ug/L
Naphthalene	300	**2600**	ug/L	**1700**	ug/L	0.012 U	ug/L	13	ug/L	0.01 U	ug/L
Acenaphthylene	--	6.1	ug/L	6	ug/L	0.0023 U	ug/L	0.015 j	ug/L	0.0023 U	ug/L
Acenaphthene	400	180	ug/L	170	ug/L	0.0031 U	ug/L	0.95	ug/L	0.5	ug/L
Fluorene	300	98	ug/L	96	ug/L	0.0036 U	ug/L	0.049	ug/L	0.029	ug/L
Phenanthrene	--	28	ug/L	28	ug/L	0.0033 U	ug/L	0.0076 U	ug/L	0.006 j	ug/L
Anthracene	2000	8.1	ug/L	8.2	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.24 U	ug/L	0.24 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0066 j	ug/L
Pyrene	200	0.24 U	ug/L	0.24 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.006 j	ug/L
Benzo(g,h,i)perylene	--	0.21 U	ug/L	0.21 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0096 j	ug/L
Pentachlorophenol	1	**56000** h	ug/L	**60000** D	ug/L	0.13 U	ug/L	**24**	ug/L	**6.5**	ug/L

Table 17

Groundwater Quality Data - Top of Surficial Aquifer
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2129		W2134		W2135	
Sample Date		9/4/2006		9/9/2006		9/11/2006	
Sample ID		GW-0265		GW-0266		GW-0267	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607588		K0607788		K0607788	
Benzo(a)anthracene	--	0.004 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0054 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0047 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0052 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0044 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0034 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0037 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0043 U	ug/L	0.0042 U	ug/L	0.0063 U	ug/L
Naphthalene	300	0.0074 j	ug/L	0.0065 U	ug/L	0.017 U	ug/L
Acenaphthylene	--	0.0024 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0032 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.0037 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.0033 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L
Anthracene	2000	0.004 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.0048 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Pyrene	200	0.0048 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0042 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 18

Groundwater Quality Data - Base of Surficial Aquifer
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2233		W2233		W2234		W2234		W2236	
Sample Date		9/14/2006		12/7/2006		9/9/2006		9/9/2006		9/19/2006	
Sample ID		GW-0268		GW-0315		GW-0271		GW-0272		GW-0274	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607898		K0610719		K0607788		K0607788		K0608088	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0065 U	ug/L
Naphthalene	300	0.0071 U	ug/L	0.13 U	ug/L	0.0065 U	ug/L	0.0065 U	ug/L	0.011 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0039 j	ug/L	0.0031 U	ug/L	0.0031 U	ug/L	0.0038 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0059 U	ug/L
Phenanthrene	--	0.0032 U	ug/L	0.0034 j	ug/L	0.0032 U	ug/L	0.0032 U	ug/L	0.013 U	ug/L
Anthracene	2000	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0098 j	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0057 j	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 18

Groundwater Quality Data - Base of Surficial Aquifer
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2236		W2236	
Sample Date		12/7/2006		12/7/2006	
Sample ID		GW-0318		GW-0319	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical	
Lab ID		K0610719		K0610719	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0045 U	ug/L
Naphthalene	300	0.011 U	ug/L	0.01 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.0055 j	ug/L	0.0068 j	ug/L
Anthracene	2000	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.0049 j	ug/L	0.0048 j	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L

Table 19

Groundwater Quality Data - Lower Aquifer
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2301		W2325		W2326		W2329		W2333	
Sample Date		9/14/2006		9/10/2006		9/9/2006		9/4/2006		9/9/2006	
Sample ID		GW-0277		GW-0278		GW-0279		GW-0280		GW-0281	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607898		K0607788		K0607788		K0607588		K0607788	
Benzo(a)anthracene	--	0.016 j	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.029	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.015 j	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.012 j	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0076 j	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.013 a	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0.012 a	ug/L	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0071 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L
Naphthalene	300	0.0065 U	ug/L	0.015 U	ug/L	0.011 U	ug/L	0.0065 U	ug/L	0.0065 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.0047 Uj	ug/L	0.0032 U	ug/L	0.0034 U	ug/L	0.0032 U	ug/L	0.0032 U	ug/L
Anthracene	2000	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.01 Uj	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Pyrene	200	0.03 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.2 j	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 19

Groundwater Quality Data - Lower Aquifer
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2335		W2336		W2336		W2336	
Sample Date		9/11/2006		9/19/2006		12/7/2006		12/7/2006	
Sample ID		GW-0282		GW-0283		GW-0316		GW-0317	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607788		K0608088		K0610719		K0610719	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.016 U	ug/L	0.0082 U	ug/L	0.0054 U	ug/L	0.0056 U	ug/L
Naphthalene	300	0.044 U	ug/L	0.026 U	ug/L	0.017 U	ug/L	0.018 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0029 j	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.021	ug/L	0.026 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.016 j	ug/L	0.028 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.043	ug/L	0.093 U	ug/L	0.0052 j	ug/L	0.0054 j	ug/L
Anthracene	2000	0.0079 j	ug/L	0.0096 j	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.021	ug/L	0.068	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Pyrene	200	0.014 j	ug/L	0.05	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.14 j	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 20
Water Quality Data Over Time
OU3 - City Dump Pit Site
City Dump Pit Site

(concentrations in ug/L)

Top of Surficial Aquifer																		
	MW2106			MW2127			MW2128			MW2129			MW2134			MW2135		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
RAL	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220
1987	—	—	—	<0.0017	0.037	<6	<6	110	2600	<0.0043	0.088	9.1	<6	<6	11000	0.0026	0.047	<6
1988	—	—	—	0.0017	0.088	<6	<6	55	2100	<0.0017	0.021	<6	<6	<6	4600	<0.0034	0.035	<6
1989	—	—	—	<0.0017	0.089	<6	<120	1500	760	<10	<10	<10	<0.0068	6.5	74	<0.0017	0.005	<6
1990	—	—	—	<0.0017	0.0034	<6	<10	5	190	<0.0017	0.0054	<6	<10	<10	<10	<0.0017	0.0038	<6
1991	—	—	—	<0.012	0.32	<6	<10	<10	99	0.004	0.0033	<6	<10	<10	<10	<0.006	0.01	<6
1992	—	—	—	<0.006	0.0065	<6	<10	<10	<10	<0.006	<0.006	<6	<10	<10	<10	<0.006	0.0078	<6
1993	—	—	—	<0.006	0.00903	<6	<0.336	7.47	130	<0.006	<0.006	<6	0.0167	0.428	<6	0.0163	0.161	<6
1994	—	—	—	<0.2	<0.35	<3	<0.8	7.7	38	<0.02	<0.035	<3	<0.4	0.072	<3	<0.4	<0.7	<3
1995	—	—	—	<0.02	0.003	<3	<4.0	40	120	<0.02	0.004	<3	<0.02	0.004	<3	<0.02	0.003	<3
1996	—	—	—	<10	<10	<50	—	—	—	<10	<10	<50	—	—	—	<10	<10	<50
1997	—	—	—	<10	<10	<50	<10	160a	79	<10	<10	<50	<10	<10	<50	<10	<10	<50
1998	—	—	—	<1.0	<1.0	<5j	—	—	—	<1.0	<1.0	<5j	—	—	—	<1.0	<1.0	<5j
1999	—	—	—	<0.02	<0.02	<3	<0.02	24	3.7	<0.02	<0.02	<3	<0.02	<0.02	<3	<0.02	<0.02	—
2000	—	—	—	<0.02	<0.02	<3	<0.02	25	4	<0.02	<0.02	<3	—	—	—	<0.02	<0.02	<3
2001	—	—	—	<0.02	<0.02	<0.5	<0.02	51	48	<0.02	<0.02	1.5	<0.019	<0.019	<0.5	<0.019	<0.019	<0.5
2002	—	—	—	<0.02	<0.02	<2.9	<0.02	45	<2.9	<0.02	0.034	<0.5	—	—	—	<0.021	0.085	<3.2
2003	—	—	—	<0.020	<0.020	<0.50	<0.020	27	25	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50
2004	—	—	—	<0.020	<0.020	<0.96	<0.020	2.59	5.5	<0.020	0.0084a	<0.50	—	—	—	<0.020	<0.020	<0.96
2005	—	—	—	<0.020	<0.020	<0.50	<0.020	6.9	6.4	<0.020	<0.020	<0.50	<0.021	<0.021	<0.50	<0.021	<0.021	<0.50
2006	ND	3300	56000 h	ND	ND	<0.13	ND	15 a	24	ND	0.0074 a	<0.13	ND	ND	<0.13	ND	ND	<0.13

a Estimated value, calculated using some or all values that are estimates.

j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

h Recommended sample preservation, extraction or analysis holding was exceeded.

< Value is non-detect at the method reporting limit.

Shaded cell indicates concentration above response action level (RAL).

Table 20
Water Quality Data Over Time
OU3 - City Dump Pit Site
City Dump Pit Site

(concentrations in ug/L)

Base of Surficial Aquifer									
	MW2233			MW2234			MW2236		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
RAL	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220
1987	—	—	—	0.0039	0.05	<6	—	—	—
1988	—	—	—	<0.0034	0.13	<6	—	—	—
1989	—	—	—	0.0045	0.16	<6	—	—	—
1990	—	—	—	—	—	—	—	—	—
1991	—	—	—	<0.003	<0.003	<6	—	—	—
1992	—	—	—	<10	<10	<10	—	—	—
1993	—	—	—	<0.1443	4.63	<6	—	—	—
1994	—	—	—	<0.4	<0.7	<3	—	—	—
1995	—	—	—	<0.02	0.004	<3	—	—	—
1996	—	—	—	<10	<10	<50	—	—	—
1997	—	—	—	<10	<10	<50	—	—	—
1998	—	—	—	<1.0	<1.0	<5j	—	—	—
1999	—	—	—	<0.02	<0.02	<3	—	—	—
2000	—	—	—	<0.02	<0.02	<3	—	—	—
2001	—	—	—	<0.019	<0.019	<0.5	—	—	—
2002	—	—	—	<0.02	<0.02	<3	—	—	—
2003	—	—	—	<0.020	<0.020	<0.50	—	—	—
2004	—	—	—	<0.020	<0.020	<0.98	—	—	—
2005	—	—	—	<0.021	<0.021	<0.50	—	—	—
2006	ND	ND	<0.13	ND	ND	<0.13	ND	0.016 a	0.14 j
2006-Dec.	ND	0.0073 a	<0.13	—	—	—	ND	0.010 a	<0.13

a Estimated value, calculated using some or all values that are estimates.
j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.
< Value is non-detect at the method reporting limit.
Shaded cell indicates concentration above response action level (RAL).

Table 20
Water Quality Data Over Time
OU3 - City Dump Pit Site
City Dump Pit Site

(concentrations in ug/L)

Lower Aquifer																		
	MW2301			MW2325			MW2326			MW2329			MW2333			MW2335		
Year	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
RAL	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220	0.28	0.3	220
1987	0.0066	0.028	<6	0.003	0.021	<6	0.0046	0.054	<6	—	—	—	<0.0017	0.027	<6	0.0021	0.034	<6
1988	<0.0034	0.046	<6	<0.0034	0.047	<6	<0.0034	0.032	<6	—	—	—	<0.0017	0.019	<6	<0.0034	0.054	<6
1989	<0.0017	0.094	<6	<0.0017	0.063	<6	<0.0017	0.047	<6	—	—	—	<1	0.018	<6	<0.0017	0.034	<6
1990	<0.0017	0.029	<6	<0.0017	0.035	<6	<10	<10	<10	—	—	—	<10	<10	<10	<0.0017	0.024	<6
1991	<0.003	<0.003	<6	<0.003	<0.003	<6	<10	<10	<10	—	—	—	<10	<10	<10	<0.003	0.011	<6
1992	<0.006	0.024	<6	<0.006	0.011	<6	<10	16	<10	—	—	—	<10	<10	<10	<0.006	0.024	<6
1993	<0.006	0.026	<6	0.0141	0.21	<6	<0.018	0.15	<6	—	—	—	<0.006	0.0265	<6	0.0031	0.18	<6
1994	<10	<10	<5	<10	<10	<5	<0.4	<0.7	<3	<0.04	<0.2	<3	<1	0.146a	<3	<0.2	<0.35	<3
1995	<0.02	0.022	<3	<0.02	0.004	<3	<0.02	0.035	<3	<0.02	0.004	<3	<0.02	0.004	<3	<0.02	0.003	<3
1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<10	<10	<50
1997	<10	<10	<50	<10	<10	<50	<10	<10	<50	<10	<10	<50	<10	<10	<50	<10	<10	<50
1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<1.0	<1.0	<5j
1999	<0.02	0.03	<3	<0.02	<0.02	<3	<0.02	0.10	<3	<0.02	<0.02	<3	<0.02	<0.02	<3	<0.02	0.07	<3
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<0.02	<0.02	<3
2001	<0.023	0.16	<0.5	<0.019	<0.019	<0.5	<0.022	0.20	<0.5	<0.02	<0.02	<0.5	<0.019	<0.019	<0.5	<0.022	<0.022	<0.5
2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<2.9
2003	<0.020	0.13	<0.50	<0.020	<0.020	<0.50	<0.020	0.067	<0.50	<0.020	<0.020	<0.50	<0.020	<0.020	<0.50	<0.020	0.083	<0.50
2004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<0.020	0.14	<0.96
2005	<0.020	0.12	<0.50	<0.021	<0.021	<0.50	<0.021	0.28	<0.50	<0.021	<0.021	<0.50	<0.022	<0.022	<0.50	<0.022	<0.022	<0.50
2006	0.079 a	ND	0.20 j	ND	ND	<0.13	ND	ND	<0.13	ND	ND	<0.13	ND	ND	<0.13	ND	0.13 a	<0.13

a Estimated value, calculated using some or all values that are estimates.
j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.
< Value is non-detect at the method reporting limit.

Table 21

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2128	W2128	W2128	W2233	W2233
Sample Date		9/5/2006	9/5/2006	12/5/2006	9/14/2006	12/7/2006
Sample ID		GW-0264	GW-0264	GW-0310	GW-0268	GW-0315
Lab Name	Intervention	Columbia Analytical	Legend Technical Ser	Columbia Analytical	Columbia Analytical	Columbia Analytical
Lab ID	Limits	K0607730	604229	K0610719	K0607898	K0610719
Diesel Range Organics	200	110 AT ug/L		57 U ug/L	17 U ug/L	18 U ug/L
Benzene	114	0.14 U ug/L		0.14 U ug/L	0.14 U ug/L	0.14 U ug/L
Toluene	68	0.11 U ug/L		0.11 U ug/L	0.11 U ug/L	0.11 U ug/L
Ethyl benzene	253	0.13 U ug/L		0.13 U ug/L	0.13 U ug/L	0.13 U ug/L
Xylene m & p	166	0.22 U ug/L		0.22 U ug/L	0.22 U ug/L	0.22 U ug/L
Xylene o-	166	0.23 j ug/L		0.11 U ug/L	0.11 U ug/L	0.11 U ug/L
Pentachlorophenol	5.5	24 ug/L		6.5 ug/L	0.13 U ug/L	0.13 U ug/L
Benzo(a)pyrene	0.02	0.0043 U ug/L		0.0043 U ug/L	0.0043 U ug/L	0.0043 U ug/L
Anthracene	0.035	0.0039 U ug/L		0.0039 U ug/L	0.0039 U ug/L	0.0039 U ug/L
1,6-Dinitropyrene	--		0.0072 U ug/L			
1,8-Dinitropyrene	--		0.003 U ug/L			
1-Nitropyrene	--		0.0078 U ug/L			
2-Nitrofluorene	--		0.0015 U ug/L			
3-Methylcholanthrene	--		0.0025 U ug/L			
5-Methylchrysene	--		0.0013 U ug/L			
5-Nitroacenaphthene	--		0.002 U ug/L			
6-Nitrochrysene	--		0.0014 U ug/L			
7,12-Dimethylbenz(a)anthracene	--		0.0014 U ug/L			
7h-Dibenzo(c,g)carbazole	--		0.0012 U ug/L			
Benzo(j)fluoranthene	--		0.0033 U ug/L			
Dibenz(a,h)acridine	--		0.0027 U* ug/L			
Dibenz(a,j)acridine	--		0.0027 U* ug/L			
Dibenzo(a,e)pyrene	--		0.0018 U ug/L			
Dibenzo(a,h)pyrene	--		0.0013 U ug/L			
Dibenzo(a,i)pyrene	--		0.0005 U ug/L			
Dibenzo(a,l)pyrene	--		0.0014 U ug/L			

Table 21

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2128		W2128		W2128		W2233		W2233	
Sample Date		9/5/2006		9/5/2006		12/5/2006		9/14/2006		12/7/2006	
Sample ID		GW-0264		GW-0264		GW-0310		GW-0268		GW-0315	
Lab Name	Intervention	Columbia Analytical		Legend Technical Ser		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID	Limits	K0607730		604229		K0610719		K0607898		K0610719	
2,3,7,8-TCDD	0.0038	0.14 U	pg/L			0.929 U	pg/L	0.155 U	pg/L	0.939 U	pg/L
1,2,3,7,8-PCDD	0.0084	0.384 U	pg/L			0.79 U	pg/L	0.248 U	pg/L	0.844 U	pg/L
1,2,3,4,7,8-HxCDD	0.1267	0.338 U	pg/L			0.781 U	pg/L	0.301 U	pg/L	0.613 U	pg/L
1,2,3,6,7,8-HxCDD	0.3800	0.326 U	pg/L			0.703 U	pg/L	0.289 U	pg/L	0.551 U	pg/L
1,2,3,7,8,9-HxCDD	0.3800	0.322 U	pg/L			0.726 U	pg/L	0.286 U	pg/L	0.569 U	pg/L
1,2,3,4,6,7,8-HpCDD	7.600	3.724 j	pg/L			10.372 U	pg/L	0.265 U	pg/L	6.621 U	pg/L
OCDD	380.0	42.747 j	pg/L			95.952 U	pg/L	9.443 U	pg/L	49.09 U	pg/L
2,3,7,8-TCDF	0.0475	0.225 U	pg/L			1.138 U	pg/L	0.256 U	pg/L	1.015 U	pg/L
1,2,3,7,8-PCDF	0.3800	0.197 U	pg/L			0.509 U	pg/L	0.185 U	pg/L	0.442 U	pg/L
2,3,4,7,8-PCDF	0.00475	0.19 U	pg/L			0.476 U	pg/L	0.178 U	pg/L	0.413 U	pg/L
1,2,3,4,7,8-HxCDF	0.4750	0.214 U	pg/L			0.426 U	pg/L	0.165 U	pg/L	0.37 U	pg/L
1,2,3,6,7,8-HxCDF	0.1900	0.223 U	pg/L			0.421 U	pg/L	0.172 U	pg/L	0.366 U	pg/L
1,2,3,7,8,9-HxCDF	0.0633	0.275 U	pg/L			0.503 U	pg/L	0.212 U	pg/L	0.437 U	pg/L
2,3,4,6,7,8-HxCDF	0.0543	0.239 U	pg/L			0.449 U	pg/L	0.184 U	pg/L	0.39 U	pg/L
1,2,3,4,6,7,8-HpCDF	38.0000	0.342 U	pg/L			2.496 U	pg/L	0.394 U	pg/L	1.596 U	pg/L
1,2,3,4,7,8,9-HpCDF	0.9500	0.48 U	pg/L			0.717 U	pg/L	0.553 U	pg/L	0.491 U	pg/L
OCDF	190.0	3.946 j	pg/L			8.557 U	pg/L	0.515 U	pg/L	1.121 U	pg/L

Table 21

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2236		W2236		W2236		W2336		W2336	
Sample Date		9/19/2006		12/7/2006		12/7/2006		9/19/2006		12/7/2006	
Sample ID		GW-0274		GW-0318		GW-0319		GW-0283		GW-0316	
Lab Name	Intervention	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID	Limits	K0608088		K0610719		K0610719		K0608088		K0610719	
Diesel Range Organics	200	15 U	ug/L	28 U	ug/L	38 U	ug/L	23 U	ug/L	16 U	ug/L
Benzene	114	0.14 U	ug/L	0.14 U	ug/L	0.14 U	ug/L	0.14 U	ug/L	0.14 U	ug/L
Toluene	68	0.11 U	ug/L	0.11 U	ug/L	0.11 U	ug/L	0.16 U	ug/L	0.15 U	ug/L
Ethyl benzene	253	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L
Xylene m & p	166	0.22 U	ug/L	0.22 U	ug/L	0.22 U	ug/L	0.22 U	ug/L	0.22 U	ug/L
Xylene o-	166	0.11 U	ug/L	0.11 U	ug/L	0.11 U	ug/L	0.23 j	ug/L	0.2 j	ug/L
Pentachlorophenol	5.5	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.14 j	ug/L	0.13 U	ug/L
Benzo(a)pyrene	0.02	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Anthracene	0.035	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0096 j	ug/L	0.0039 U	ug/L
1,6-Dinitropyrene	--										
1,8-Dinitropyrene	--										
1-Nitropyrene	--										
2-Nitrofluorene	--										
3-Methylcholanthrene	--										
5-Methylchrysene	--										
5-Nitroacenaphthene	--										
6-Nitrochrysene	--										
7,12-Dimethylbenz(a)anthracene	--										
7h-Dibenzo(c,g)carbazole	--										
Benzo(j)fluoranthene	--										
Dibenz(a,h)acridine	--										
Dibenz(a,j)acridine	--										
Dibenzo(a,e)pyrene	--										
Dibenzo(a,h)pyrene	--										
Dibenzo(a,i)pyrene	--										
Dibenzo(a,I)pyrene	--										

Table 21

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2236		W2236		W2236		W2336		W2336	
Sample Date		9/19/2006		12/7/2006		12/7/2006		9/19/2006		12/7/2006	
Sample ID		GW-0274		GW-0318		GW-0319		GW-0283		GW-0316	
Lab Name	Intervention	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID	Limits	K0608088		K0610719		K0610719		K0608088		K0610719	
2,3,7,8-TCDD	0.0038	0.215 U	pg/L	2.241 U	pg/L	0.972 U	pg/L	0.175 U	pg/L	0.898 U	pg/L
1,2,3,7,8-PCDD	0.0084	0.258 U	pg/L	1.874 U	pg/L	0.826 U	pg/L	0.28 U	pg/L	0.915 U	pg/L
1,2,3,4,7,8-HxCDD	0.1267	0.32 U	pg/L	1.481 U	pg/L	0.996 U	pg/L	0.268 U	pg/L	0.548 U	pg/L
1,2,3,6,7,8-HxCDD	0.3800	0.308 U	pg/L	1.333 U	pg/L	0.897 U	pg/L	0.258 U	pg/L	0.493 U	pg/L
1,2,3,7,8,9-HxCDD	0.3800	0.304 U	pg/L	1.376 U	pg/L	0.926 U	pg/L	0.255 U	pg/L	0.509 U	pg/L
1,2,3,4,6,7,8-HpCDD	7.600	2.5 j	pg/L	7.61 U	pg/L	5.307 U	pg/L	3.234 j	pg/L	2.765 U	pg/L
OCDD	380.0	27.912 U	pg/L	90.531 U	pg/L	39.879 U	pg/L	56.507	pg/L	26.112 U	pg/L
2,3,7,8-TCDF	0.0475	0.196 U	pg/L	2.156 U	pg/L	0.921 U	pg/L	0.252 U	pg/L	1.038 U	pg/L
1,2,3,7,8-PCDF	0.3800	0.232 U	pg/L	1.444 U	pg/L	0.514 U	pg/L	0.219 U	pg/L	0.459 U	pg/L
2,3,4,7,8-PCDF	0.00475	0.223 U	pg/L	1.349 U	pg/L	0.588 jEMPC	pg/L	0.211 U	pg/L	0.429 U	pg/L
1,2,3,4,7,8-HxCDF	0.4750	0.126 U	pg/L	0.952 U	pg/L	0.567 jEMPC	pg/L	0.172 U	pg/L	0.331 U	pg/L
1,2,3,6,7,8-HxCDF	0.1900	0.131 U	pg/L	0.941 U	pg/L	0.603 jEMPC	pg/L	0.18 U	pg/L	0.327 U	pg/L
1,2,3,7,8,9-HxCDF	0.0633	0.162 U	pg/L	1.125 U	pg/L	0.65 U	pg/L	0.221 U	pg/L	0.391 U	pg/L
2,3,4,6,7,8-HxCDF	0.0543	0.141 U	pg/L	1.005 U	pg/L	0.56	pg/L	0.192 U	pg/L	0.349 U	pg/L
1,2,3,4,6,7,8-HpCDF	38.0000	0.33 U	pg/L	3.389 U	pg/L	1.394 jEMPC	pg/L	1.047 j	pg/L	1.185 U	pg/L
1,2,3,4,7,8,9-HpCDF	0.9500	0.463 U	pg/L	1.244 U	pg/L	1.215 U	pg/L	0.505 U	pg/L	0.664 U	pg/L
OCDF	190.0	3.316 U	pg/L	6.459 U	pg/L	2.629 U	pg/L	5.308 U	pg/L	1.057 U	pg/L

Table 21

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2336	
Sample Date		12/7/2006	
Sample ID		GW-0317	
Lab Name	Intervention	Columbia Analytical	
Lab ID	Limits	K0610719	
Diesel Range Organics	200	14 U	ug/L
Benzene	114	0.14 U	ug/L
Toluene	68	0.15 U	ug/L
Ethyl benzene	253	0.13 U	ug/L
Xylene m & p	166	0.22 U	ug/L
Xylene o-	166	0.21 j	ug/L
Pentachlorophenol	5.5	0.13 U	ug/L
Benzo(a)pyrene	0.02	0.0043 U	ug/L
Anthracene	0.035	0.0039 U	ug/L
1,6-Dinitropyrene	--		
1,8-Dinitropyrene	--		
1-Nitropyrene	--		
2-Nitrofluorene	--		
3-Methylcholanthrene	--		
5-Methylchrysene	--		
5-Nitroacenaphthene	--		
6-Nitrochrysene	--		
7,12-Dimethylbenz(a)anthracene	--		
7h-Dibenzo(c,g)carbazole	--		
Benzo(j)fluoranthene	--		
Dibenz(a,h)acridine	--		
Dibenz(a,j)acridine	--		
Dibenzo(a,e)pyrene	--		
Dibenzo(a,h)pyrene	--		
Dibenzo(a,i)pyrene	--		
Dibenzo(a,I)pyrene	--		

Table 21

Groundwater Quality Data - Additional Parameters and Intervention Limits
OU3 - City Dump Area
St. Regis Paper Company Site

Station ID		W2336	
Sample Date		12/7/2006	
Sample ID		GW-0317	
Lab Name	Intervention	Columbia Analytical	
Lab ID	Limits	K0610719	
2,3,7,8-TCDD	0.0038	0.794 U	pg/L
1,2,3,7,8-PCDD	0.0084	0.61 U	pg/L
1,2,3,4,7,8-HxCDD	0.1267	0.526 U	pg/L
1,2,3,6,7,8-HxCDD	0.3800	0.473 U	pg/L
1,2,3,7,8,9-HxCDD	0.3800	0.488 U	pg/L
1,2,3,4,6,7,8-HpCDD	7.600	2.192 U	pg/L
OCDD	380.0	21.314 U	pg/L
2,3,7,8-TCDF	0.0475	0.678 U	pg/L
1,2,3,7,8-PCDF	0.3800	0.418 U	pg/L
2,3,4,7,8-PCDF	0.00475	0.39 U	pg/L
1,2,3,4,7,8-HxCDF	0.4750	0.337 U	pg/L
1,2,3,6,7,8-HxCDF	0.1900	0.333 U	pg/L
1,2,3,7,8,9-HxCDF	0.0633	0.398 U	pg/L
2,3,4,6,7,8-HxCDF	0.0543	0.355 U	pg/L
1,2,3,4,6,7,8-HpCDF	38.0000	0.939 U	pg/L
1,2,3,4,7,8,9-HpCDF	0.9500	0.757 U	pg/L
OCDF	190.0	0.95 U	pg/L

Table 22

Groundwater Quality Data - OU1 OU3 Extraction Wells
St. Regis Paper Company Site

Station ID		W401		W402		W403		W405		W406	
Sample Date		9/19/2006		9/19/2006		9/19/2006		9/19/2006		9/19/2006	
Sample ID		GW-0243		GW-0244		GW-0245		GW-0246		GW-0247	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0608088		K0608088		K0608088		K0608088		K0608088	
Benzo(a)anthracene	--	0.039 U	ug/L	0.0039 U	ug/L	0.02 U	ug/L	0.39 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.053 U	ug/L	0.0088	ug/L	0.027 U	ug/L	0.53 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.046 U	ug/L	0.0071	ug/L	0.023 U	ug/L	0.46 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.051 U	ug/L	0.0055	ug/L	0.026 U	ug/L	0.51 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.043 U	ug/L	0.0045	ug/L	0.022 U	ug/L	0.43 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.033 U	ug/L	0.0033 U	ug/L	0.017 U	ug/L	0.33 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.036 U	ug/L	0.0036 U	ug/L	0.018 U	ug/L	0.36 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.04 U	ug/L	0.007	ug/L	0.02 U	ug/L	0.4 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0.0058	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.042 U	ug/L	0.0042 U	ug/L	0.021 U	ug/L	0.42 U	ug/L	0.18	ug/L
Naphthalene	300	0.065 U	ug/L	0.0082 U	ug/L	0.033 U	ug/L	0.65 U	ug/L	0.17	ug/L
Acenaphthylene	--	0.27	ug/L	0.01	ug/L	0.014 U	ug/L	2.2	ug/L	0.0023 U	ug/L
Acenaphthene	400	4.7	ug/L	0.0031 U	ug/L	0.016 U	ug/L	82	ug/L	0.57	ug/L
Fluorene	300	0.1	ug/L	0.015 U	ug/L	0.026 U	ug/L	36	ug/L	0.6	ug/L
Phenanthrene	--	0.17	ug/L	0.014 U	ug/L	0.026 U	ug/L	9	ug/L	0.72	ug/L
Anthracene	2000	0.79	ug/L	0.11	ug/L	0.061	ug/L	3	ug/L	0.05	ug/L
Fluoranthene	300	0.57	ug/L	0.02	ug/L	0.024 U	ug/L	0.47 U	ug/L	0.12	ug/L
Pyrene	200	0.84	ug/L	0.12	ug/L	0.024 U	ug/L	0.47 U	ug/L	0.05	ug/L
Benzo(g,h,i)perylene	--	0.041 U	ug/L	0.0041 U	ug/L	0.021 U	ug/L	0.41 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	**1300** D	ug/L	**88** D	ug/L	**450** D	ug/L	**7700** D	ug/L	0.13 U	ug/L

Table 22

Groundwater Quality Data - OU1 OU3 Extraction Wells
St. Regis Paper Company Site

Station ID		W407		W408		W409		W410		W411	
Sample Date		9/19/2006		9/19/2006		9/19/2006		9/19/2006		9/18/2006	
Sample ID		GW-0248		GW-0249		GW-0250		GW-0251		GW-0252	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0608088		K0608088		K0608088		K0608088		K0608088	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.039 U	ug/L	0.039 U	ug/L	0.11	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.053 U	ug/L	0.053 U	ug/L	0.12	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.046 U	ug/L	0.046 U	ug/L	0.038	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.051 U	ug/L	0.051 U	ug/L	0.034	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.043 U	ug/L	0.043 U	ug/L	0.014	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.033 U	ug/L	0.033 U	ug/L	0.0078 j	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.036 U	ug/L	0.036 U	ug/L	0.0072 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.04 U	ug/L	0.13	ug/L	0.021 a	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0.0026	ug/L	0.019 a	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0055 U	ug/L	6.1	ug/L	36	ug/L	0.067	ug/L	0.0073 U	ug/L
Naphthalene	300	0.025 U	ug/L	23	ug/L	**320**	ug/L	0.084	ug/L	0.021 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.15	ug/L	0.53	ug/L	0.011	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	5.4	ug/L	18	ug/L	0.24	ug/L	0.0038 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.92	ug/L	8.4	ug/L	0.42	ug/L	0.004 U	ug/L
Phenanthrene	--	0.0032 U	ug/L	0.045	ug/L	2.5	ug/L	2.2	ug/L	0.006 U	ug/L
Anthracene	2000	0.0089 j	ug/L	0.26	ug/L	0.69	ug/L	0.28	ug/L	0.0042 j	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.047 U	ug/L	0.047 U	ug/L	0.97	ug/L	0.0047 U	ug/L
Pyrene	200	0.0047 U	ug/L	0.047 U	ug/L	0.047 U	ug/L	0.54	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.041 U	ug/L	0.041 U	ug/L	0.0082 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	**660** D	ug/L	**2100** D	ug/L	**36** D	ug/L	**31**	ug/L

Table 22

Groundwater Quality Data - OU1 OU3 Extraction Wells
St. Regis Paper Company Site

Station ID		W2401		W2402		W2403		W2403	
Sample Date		9/19/2006		9/19/2006		9/19/2006		9/19/2006	
Sample ID		GW-0286		GW-0287		GW-0288		GW-0289	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0608088		K0608088		K0608088		K0608088	
Benzo(a)anthracene	--	330	ug/L	0.02 U	ug/L	0.039 U	ug/L	0.039 U	ug/L
Chrysene	--	340	ug/L	0.027 U	ug/L	0.053 U	ug/L	0.053 U	ug/L
Benzo(b)fluoranthene	--	120	ug/L	0.023 U	ug/L	0.046 U	ug/L	0.046 U	ug/L
Benzo(k)fluoranthene	--	120	ug/L	0.026 U	ug/L	0.051 U	ug/L	0.051 U	ug/L
Benzo(a)pyrene	--	82	ug/L	0.022 U	ug/L	0.043 U	ug/L	0.043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	26	ug/L	0.017 U	ug/L	0.033 U	ug/L	0.033 U	ug/L
Dibenz(a,h)anthracene	--	5.7	ug/L	0.018 U	ug/L	0.036 U	ug/L	0.036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	150	ug/L	0.02 U	ug/L	0.04 U	ug/L	0.04 U	ug/L
BaP Equiv (ND = 0)	0.2	150	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	2900	ug/L	0.021 U	ug/L	150	ug/L	85	ug/L
Naphthalene	300	**11000**	ug/L	0.033 U	ug/L	**1600**	ug/L	**500**	ug/L
Acenaphthylene	--	40	ug/L	0.076	ug/L	2.2	ug/L	2.1	ug/L
Acenaphthene	400	**2800**	ug/L	0.016 U	ug/L	120	ug/L	100	ug/L
Fluorene	300	**2200**	ug/L	0.043 U	ug/L	56	ug/L	50	ug/L
Phenanthrene	--	5200	ug/L	0.13	ug/L	19	ug/L	15	ug/L
Anthracene	2000	640	ug/L	0.22	ug/L	4.6	ug/L	4.5	ug/L
Fluoranthene	300	**2200**	ug/L	0.024 U	ug/L	0.42	ug/L	0.38	ug/L
Pyrene	200	**1400**	ug/L	0.024 U	ug/L	0.17 j	ug/L	0.15	ug/L
Benzo(g,h,i)perylene	--	19	ug/L	0.021 U	ug/L	0.041 U	ug/L	0.041 U	ug/L
Pentachlorophenol	1	**4200** D	ug/L	**370** D	ug/L	**1700** D	ug/L	**1800** D	ug/L

Table 23
Water Quality Data Over Time
Extraction Wells
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L)

	OU1 - Pump-Out Wells											OU3 - Pump-Out Wells		
Year	W401 PCP	W402 PCP	W403 PCP	W404 PCP	W405 PCP	W406 PCP	W407 PCP	W408 PCP	W409 PCP	W410 PCP	W411 PCP	W2401 PCP	W2402 PCP	W2403 PCP
1987	3,000	1,600	9,300	17,000	8,000	<6	<6	9,900	21,000	<6	690	—	—	—
1988	2,000	1,300	2,200	6,300	4,500	12	<5	5,000	18,000	280	—	16,000	17,000	6,900
1989	56	1,200	1,500	9,000	7,000	<5	—	5,600	8,900	130	—	—	2,500	4,500
1990	1,500	700	790	—	5,500	—	—	4,800	5,800	39	—	—	700	2,600
1991	3,900	1,600	1,200	—	1,500	<10	—	9,100	11,000	<10	—	—	820	3,800
1992	1,500	1,100	560	—	840	—	—	3,800	5,400	<5	—	—	580	3,400
1993	970	810	300	—	6,400	—	—	4,400	4,800	<5	—	3,100	450	2,800
1994	2,000	2,200	320	—	6,500	<5	<5	3,100	3,700	8	—	3,800	280	1,900
1995	890	1,200	190	—	5,300	<5	<5	1,300	2,100	14	—	1,800	220	1,600
1996	—	—	—	—	—	—	—	2,000	—	—	—	—	—	—
1997	1,000	950	560	—	5,300	58	<50	2,000	5,000	—	—	5,700	1,000	2,200
1998	—	—	—	—	—	—	—	1,200	—	—	—	—	—	—
1999	1,500	1,300	640	—	7,000	<50	<50	1,800	2,900	<50	350	4,400	1,400	3,500
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2001	1,700	1,900	530	—	7,400	<24	<24	1,200	3,100	50	14	3,200	340	3,000
2002	—	—	—	—	—	—	—	430	—	—	—	—	—	—
2003	1,700	290	400	—	7,500	<0.50	<0.50	700	1,700	3.1	12	3,100	<0.50	1,800
2004	—	—	—	—	—	—	—	450	—	—	—	—	—	—
2005	2,200	950	820	—	9,900	<0.50	<0.50	820	1,900	<20	17	2900	220	2,100
2006	1,300	88	450	—	7,700	<0.13	<0.13	660	2,100	36	31	4,200	370	1,700

- No sample collected or analyzed.

< Value is non-detect at the method reporting limit.

Table 24

Groundwater Quality Data - Additional Parameters
Extraction Wells
St. Regis Paper Company Site

Station ID	W409	
Sample Date	9/19/2006	
Sample ID	GW-0250	
Lab Name	Legend Technical Ser	
Lab ID	604421	
1,6-Dinitropyrene	0.0071 U	ug/L
1,8-Dinitropyrene	0.003 U	ug/L
1-Nitropyrene	0.0078 U	ug/L
2-Nitrofluorene	0.0015 U	ug/L
3-Methylcholanthrene	0.0025 U	ug/L
5-Methylchrysene	0.0013 U	ug/L
5-Nitroacenaphthene	0.13	ug/L
6-Nitrochrysene	0.0014 U	ug/L
7,12-Dimethylbenz(a)anthracene	0.0014 U	ug/L
7H-Dibenzo(c,g)carbazole	0.0012 U	ug/L
Benzo(j)fluoranthene	0.0033 U	ug/L
Dibenz(a,h)acridine	0.0027 U	ug/L
Dibenz(a,j)acridine	0.0027 U	ug/L
Dibenzo(a,e)pyrene	0.0018 U	ug/L
Dibenzo(a,h)pyrene	0.0013 U	ug/L
Dibenzo(a,i)pyrene	0.0005 U	ug/L
Dibenzo(a,l)pyrene	0.0014 U	ug/L

Table 25
Water Quality Data - Pentachlorophenol
Groundwater Treatment System
St. Regis Company and City Dump Pit Sites

(concentrations in ug/L)

Sample Collection Date	Influent	Primary	Secondary	Effluent	Effluent Limitation
		ADS C	ADS A	ADS B	
01/09/2006	2600	1900	<0.50	<0.50	5.5
02/07/2006	2400	1600	<0.50	<0.50	5.5
03/07/2006	1800	1600	<0.50	<0.50	5.5
04/05/2006	2100	1700	<0.50	<0.50	5.5
05/09/2006	2100	1900	<0.50	<0.50	5.5
06/06/2006	1800	1600	<0.50	<0.50	5.5
		ADS A	ADS B	ADS C	
07/06/2006	2,000	480	<0.50	<0.50	5.5
08/07/2006	2,000	720	<0.50	<0.50	5.5
09/12/2006	1900	910	0.26 j	<0.13 *	5.5
10/16/2006	1700	1300	7.1	<0.13	5.5
11/21/2006	2200	1800	50	0.36 j*	5.5
12/13/2006	4700	2600	35	0.17 j	5.5

* Estimated value, QA/QC criteria not met.
j Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.

Table 26
Water Quality Data - Effluent
Groundwater Treatment System
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L, unless noted otherwise)

Location		Effluent						
	Effluent	ADSB	ADSB	ADSC	ADSC	ADSC	ADSC	ADSC
Date	Limitation	1/9/2006	4/5/2006	7/6/2006	9/12/2006	10/16/2006	11/21/2006	12/13/2006
Benzo(a)anthracene	--	<0.020	<0.020	<0.020	<0.0039	<0.0039	0.013 j	0.013 j
Chrysene	--	<0.020	<0.020	<0.020	<0.0053	<0.0053	0.019 j	<0.013
Benzo(b)fluoranthene	--	<0.020	<0.020	<0.020	<0.0046	<0.0046	0.024	<0.011
Benzo(k)fluoranthene	--	<0.020	<0.020	<0.020	<0.0051	<0.0051	0.024	0.0091 j
Benzo(a)pyrene	0.02	<0.020	<0.020	<0.020	<0.0043	<0.0043	0.012 j *	0.0077 j
Indeno(1,2,3-cd)pyrene	--	<0.020 *	<0.020	<0.020	<0.0033	<0.0033	<0.0033	<0.011
Dibenz(a,h)anthracene	--	<0.020 *	<0.020	<0.020	<0.0036	<0.0036	<0.0036	0.0067 j
2-Methylnaphthalene	--	--	--	--	<0.0042	<0.0042	<0.0042	<0.0042
Naphthalene	81	<0.020	<0.020	<0.020	0.0072 j	<0.010	<0.0065	<0.0099
Acenaphthylene	--	<0.020	<0.020	<0.020	<0.0023	<0.0023	<0.0023	<0.0023
Acenaphthene	12	<0.020	<0.020	<0.020	0.0047 j	0.0035 j	<0.0031	<0.0031
Fluorene	--	<0.020	<0.020	<0.020	0.0067 j	<0.0036	<0.0036	<0.0036
Phenanthrene	2.1	<0.020	<0.020	0.031	<0.010	<0.0052	<0.0081	<0.0059
Anthracene	0.029	<0.020	<0.020	<0.020	<0.0039	<0.0039	<0.0039	<0.0039
Fluoranthene	20	<0.020	<0.020	<0.020	0.0094 j	0.016 j	0.044	<0.032
Pyrene	--	<0.020	<0.020	<0.020	0.0058 j	0.014 j	0.077	<0.032
Benzo(g,h,i)perylene	--	<0.020 *	<0.020	<0.020	<0.0041	<0.0041	<0.0041	<0.016
Pentachlorophenol	5.5	See Table 25						
Arsenic	53	--	--	--	1.92	1.85	2.10	2.19
Chromium	11 CR	--	--	--	<0.16	<0.18	0.79	<0.16
Copper	9.8 HD	--	--	--	0.34	0.56	1.38	0.87
Diesel Range Organics	200	--	--	--	<11	9.7 j	<44	<12
Benzene	114	--	--	--	<0.14	<0.14	<0.14	<0.14
Ethyl benzene	68	--	--	--	<0.13	<0.13	<0.13	<0.13
Toluene	253	--	--	--	<0.11	<0.11	<0.11	<0.11
Xylene m & p	166	--	--	--	<0.22	<0.22	<0.22	<0.22
Xylene o-	166	--	--	--	<0.11	<0.11	<0.11	<0.11
PCDD/PCDFs in pg/L								
2,3,7,8-TCDD	0.0038	--	--	--	<0.215	<0.959	--	--
1,2,3,7,8-Dioxin penta	0.0084	--	--	--	<0.475	<1.135	--	--
1,2,3,4,7,8-Dioxin, hexa	0.1267	--	--	--	<0.360	<1.549	--	--
1,2,3,6,7,8-Dioxin, hexa	0.3800	--	--	--	<0.327	<1.304	--	--
1,2,3,7,8,9-Dioxin, hexa	0.3800	--	--	--	<0.348	<1.316	--	--
1,2,3,4,6,7,8-Dioxin, hepta	7.600	--	--	--	<3.604	4.091 j	--	--
Dioxin octa	380.0	--	--	--	<23.486	44.584 *	--	--
2,3,7,8-TCDF	0.0475	--	--	--	<0.249	<0.945	--	--
1,2,3,7,8-Dibenzofuran, penta	0.3800	--	--	--	<0.246	<0.978	--	--
2,3,4,7,8-Dibenzofuran, penta	0.0048	--	--	--	<0.240	<0.953	--	--
1,2,3,4,7,8-Dibenzofuran, hexa	0.4750	--	--	--	<0.384	<1.040	--	--
1,2,3,6,7,8-Dibenzofuran, hexa	0.1900	--	--	--	<0.359	<1.031	--	--
1,2,3,7,8,9-Dibenzofuran, hexa	0.0543	--	--	--	<0.512	<1.259	--	--
2,3,4,6,7,8-Dibenzofuran, hexa	0.0633	--	--	--	<0.420	<1.131	--	--
1,2,3,4,6,7,8-Dibenzofuran, hepta	38.00	--	--	--	<0.441	<1.951	--	--
1,2,3,4,7,8,9-Dibenzofuran, hepta	0.9500	--	--	--	<0.621	<2.654	--	--
Dibenzofuran octa	190.0	--	--	--	<3.862	10.712 EMPC	--	--

Table 26
Water Quality Data - Effluent
Groundwater Treatment System
St. Regis Paper Company and City Dump Pit Sites

(concentrations in ug/L, unless noted otherwise)

Location	Effluent	Effluent						
Date	Limitation	ADSB 1/9/2006	ADSB 4/5/2006	ADSC 7/6/2006	ADSC 9/12/2006	ADSC 10/16/2006	ADSC 11/21/2006	ADSC 12/13/2006

-- Effluent discharge limit.
* Estimated value, QA/QC criteria not met.
ND Not detected at or above the method detection limit.
< Value is non-detect at the method detection limit.
a Estimated value, calculated using some or all values that are estimates.
CR The value represents the criteria for chromium, hexavalent.
HD Hardness dependent. The specific analyte should be referenced in MnRules 7050 for specific calculations.
The value reported assumes a hardness of 100 mg/L.
EMPC Estimated maximum possible concentration.
Exceedances of Effluent Discharge Limits are presented in **bold.**

Table 27
2006 Monthly Volume
Groundwater Treatment System
St. Regis Paper Company and City Dump Sites

Month	Flow (10^6 gallons)
Jan-06	4.0
Feb-06	4.0
Mar-06	4.4
Apr-06	4.1
May-06	4.1
Jun-06	3.9
Jul-06	4.0
Aug-06	4.3
Sep-06	4.8
Oct-06	5.3
Nov-06	5.3
Dec-06	4.5
Average	52.7

Table 28
2006 Average Effluent pH
Groundwater Treatment System
St. Regis Paper Company and City Dump Sites

Month	pH
Jan-06	6.8
Feb-06	6.9
Mar-06	6.9
Apr-06	6.8
May-06	6.8
Jun-06	6.9
Jul-06	6.8
Aug-06	6.8
Sep-06	6.8
Oct-06	6.8
Nov-06	6.9
Dec-06	7.0
Average	6.8

Table 29

Groundwater Quality Data - Lower Aquifer
Fish Hatchery Wells
Cass Lake, Minnesota

Station ID		FISH1		FISH2		FISH3		FISH4	
Sample Date		9/11/2006		9/11/2006		9/28/2006		9/11/2006	
Sample ID		GW-0291		GW-0292		GW-0293		GW-0294	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical		Columbia Analytical		Columbia Analytical	
Lab ID		K0607788		K0607788		K0608392		K0607788	
Benzo(a)anthracene	--	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Chrysene	--	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L	0.0053 U	ug/L
Benzo(b)fluoranthene	--	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L	0.0046 U	ug/L
Benzo(k)fluoranthene	--	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L	0.0051 U	ug/L
Benzo(a)pyrene	--	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L	0.0043 U	ug/L
Indeno(1,2,3-cd)pyrene	--	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L	0.0033 U	ug/L
Dibenz(a,h)anthracene	--	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
BaP Equiv (ND = 1/2 DL)	0.2	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L	0.004 U	ug/L
BaP Equiv (ND = 0)	0.2	0	ug/L	0	ug/L	0	ug/L	0	ug/L
2-Methylnaphthalene	--	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L	0.0042 U	ug/L
Naphthalene	300	0.0065 U	ug/L	0.0065 U	ug/L	0.0065 U	ug/L	0.0065 U	ug/L
Acenaphthylene	--	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L	0.0023 U	ug/L
Acenaphthene	400	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L	0.0031 U	ug/L
Fluorene	300	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L	0.0036 U	ug/L
Phenanthrene	--	0.0032 U	ug/L	0.0032 U	ug/L	0.0035 U	ug/L	0.0032 U	ug/L
Anthracene	2000	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L	0.0039 U	ug/L
Fluoranthene	300	0.0047 U	ug/L	0.0047 U	ug/L	0.0049 U	ug/L	0.0047 U	ug/L
Pyrene	200	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L	0.0047 U	ug/L
Benzo(g,h,i)perylene	--	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L	0.0041 U	ug/L
Pentachlorophenol	1	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L	0.13 U	ug/L

Table 30
Water Quality Data Over Time
Fish Hatchery Wells
Cass Lake, Minnesota

(concentrations in ug/L)

Year	Fish 1			Fish 2			Fish 3			Fish 4		
	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP	Σ(cPAH)	Σ(nPAH)	PCP
May-92	<0.003	0.004	<6	<0.003	0.005	<6	<0.003	0.004	<6	<0.045	1.4	<6
Dec-92	—	—	—	—	—	—	—	—	—	<0.003	0.19	—
Jun-93	—	—	—	—	—	—	—	—	—	—	—	<6
Jul-93	—	—	—	—	—	—	—	—	—	<0.003	0.010	—
Feb-94	—	—	—	—	—	—	—	—	—	<0.090	1.3	<6
Jun-94	—	—	—	—	—	—	—	—	—	<0.090	3.2	<3
Dec-94	—	—	—	—	—	—	—	—	—	<0.003	0.030	<3
Jun-95	<0.003	<0.003	<3	<0.003	<0.003	<3	<0.003	0.003	<3	<0.30	5.2	<3
Nov-95	—	—	—	—	—	—	—	—	—	<0.006	<0.006	<3
Jun-97	—	—	—	—	—	—	—	—	—	<10	6 a	<50
May-98	—	—	—	—	—	—	—	—	—	<0.10	0.37	<0.50
May-99	—	—	—	—	—	—	—	—	—	<0.02	0.35	<3
Apr-00	—	—	—	—	—	—	—	—	—	<0.02	0.03	<0.50
Apr-01	—	—	—	—	—	—	—	—	—	<0.019	<0.019	<0.50
May-02	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<3
May-02	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<0.50 h
May-03	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<0.50
Apr-04	—	—	—	—	—	—	—	—	—	<0.019	<0.019	<0.50
May-05	—	—	—	—	—	—	—	—	—	<0.020	<0.020	<0.50
Sep-06	ND	ND	<0.13	ND	ND	<0.13	ND	ND	<0.13	ND	ND	<0.13

— Not analyzed.

a Estimated value, calculated using some or all values that are estimates.

h EPA sample extraction or analysis holding time was exceeded.

Table 31

Groundwater Quailty Data - Shallow Surficial Aquifier
MDNR Well #11016

Station ID		DNR #11016		DNR #11016	
Sample Date		9/19/2006		12/6/2006	
Sample ID		GW-0304		GW-0314	
Lab Name	DWC[1]	Columbia Analytical		Columbia Analytical	
Lab ID		K0608088		K0610719	
Benzo(a)anthracene	--	0.02 U	ug/L		
Chrysene	--	0.027 U	ug/L		
Benzo(b)fluoranthene	--	0.023 U	ug/L		
Benzo(k)fluoranthene	--	0.026 U	ug/L		
Benzo(a)pyrene	--	0.022 U	ug/L		
Indeno(1,2,3-cd)pyrene	--	0.017 U	ug/L		
Dibenz(a,h)anthracene	--	0.018 U	ug/L		
BaP Equiv (ND = 1/2 DL)	0.2	0.02 U	ug/L		
BaP Equiv (ND = 0)	0.2	0	ug/L		
2-Methylnaphthalene	--	0.021 U	ug/L		
Naphthalene	300	0.033 U	ug/L		
Acenaphthylene	--	0.012 j	ug/L		
Acenaphthene	400	0.016 U	ug/L		
Fluorene	300	0.018 U	ug/L		
Phenanthrene	--	0.26	ug/L		
Anthracene	2000	0.11	ug/L		
Fluoranthene	300	0.024 U	ug/L		
Pyrene	200	0.027	ug/L		
Benzo(g,h,i)perylene	--	0.021 U	ug/L		
Pentachlorophenol	1	12 D	ug/L	0.13 U	ug/L

Table 32
Leachate Elevations
OU2- Containment Vault
St. Regis Paper Company and City Dump Pit Sites

[Elevations in ft. MSL]

Date	Leachate Collection Manhole	Leak Detection Manhole
12/04/92	1312.40	1312.39
05/17/93	1313.32	1313.14
08/02/93	1313.63	1313.32
10/07/93	1313.65	1313.47
04/15/94	1313.82	1313.80
09/13/94	1313.82	1313.80
04/27/95	1314.15	1314.22
07/18/95	1314.15	1314.22
06/13/96	1314.59	1314.66
09/22/97	1314.90	1314.91
05/05/98	1314.82	1314.72
08/31/98	1314.86	1314.80
05/06/99	1315.03	1314.72
09/22/99	1315.15	1315.14
04/27/00	1315.36	1315.39
09/27/00	1315.19	1315.22
05/31/01	1315.73	1315.80
10/03/01	1315.78	1315.85
10/05/01	1315.78	1315.85
10/22/01	1314.19	1313.39
10/29/01	1312.36	1312.20
11/13/01	1312.36	1311.22
05/03/02	1313.78	1313.72
10/02/02	1313.94	1313.91
10/21/02	1313.94	1313.91
12/11/02	1313.86	1312.64
05/23/03	1313.53	1313.60
11/06/03	1313.23	1313.01
05/17/04	1313.32	1313.28
11/05/04	1313.34	1312.89
05/11/05	1313.36	1313.26
10/03/05	1313.53	1313.35
11/02/05	1313.28	1312.60
05/12/06	1313.78	1313.14
11/09/06	1313.46	1313.20
11/21/06	1312.42	1311.42

Notes:

LCM - Bottom elevation - 1312.19 ft MSL

LDM - Bottom elevation - 1311.20 ft MSL

Table 33
Benchmark Elevations
OU2 - Containment Vault Operable Unit
St. Regis Paper Company Site

[Elevations in Ft. MSL]

Date	BM-1	BM-2	BM-3	BM-4	BM-5
12/21/88	1341.41	1338.42	1338.89	1341.18	1338.83
04/08/91	1341.44	1338.46	1338.93	1341.21	1338.82
08/09/92	1341.43	1338.44	1338.93	1341.20	1338.83
10/07/93	1341.49	1338.56	1339.05	1341.17	1338.85
06/16/94	1341.69	1338.69	1339.17	1341.46	1338.98
06/09/95	1341.70	1338.74	1339.19	1341.47	1339.09
06/04/96	1341.69	1338.70	1339.18	1341.47	1339.08
06/04/97	1341.69	1338.72	1339.20		1339.09
05/01/98	1341.68	1338.67	1339.18	1341.46	1339.07
05/14/99	1341.68	1338.69	1339.17	1341.46	1339.06
04/06/00	1341.68	1338.68	1339.14	1341.46	1339.08
04/27/01	1341.67	1338.70	1339.17	1341.45	1339.06
05/06/02	1341.70	1338.70	1339.16	1341.45	1339.06
05/12/03	1341.68	1338.70	1339.18	1341.46	1339.07
04/28/04	1341.68	1338.72	1339.19	1341.46	1339.08
05/06/05	1341.69	1338.71	1339.18	1341.47	1339.07
09/08/06	1341.70	1338.72	1339.18	1341.47	1339.08

Table 34

Leachate Removal Summary
OU2 - Containment Vault
St. Regis Paper Company Site
Cass Lake, Minnesota

Date	Flowmeter (cf)	Volume Removed (gallons)	LCM		LDM	
			Depth	Elevation	Depth	Elevation
11/09/06			31.69	1313.46	32.02	1313.20
11/21/06		7,086	Meter Quit - Timed (383 minutes @ 118.5 gpm)			
11/21/06			32.73	1312.42	33.80	1311.42

Leachate Removal Summary

2006	**7,100 gallons**
Prior Years	**1,575,300 gallons**
Total	**1,582,400 gallons**

Annual Totals

2001	**129,535 gallons**
2002	**27,470 gallons**
2003	**17,092 gallons**
2004	**10,487 gallons**
2005	**10,681 gallons**
2006	**7,086 gallons**

Table 35
Annual Sample Program - 2007
Groundwater and Surface Water Monitoring
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level (1)
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	
OU1-	Top of Surficial	W104	P		1		1					2
Treating Facility		W105	P		1		1					2
Area		W112	P		1		1					2
		W114	I		1		1					2
		W115	I		1		1					2
		W118	PMC									2
	Bottom of Surficial	W205	P		1		1					2
		W209	P		1		1					2
		W212 (2)	I									2
		W213 (2)	I									2
		W215	I		1		1	1				2
		W217	P		1		1					2
		W218	P		1		1					2
		W219	P		1		1					2
		W220 (2)	I					1				2
		W221	P		1		1					2
		W222										2
		W223										2
	Lower Aquifer	MW3	P		1		1					2
		W302	P		1		1					2
		W306	I		1		1					2
	Pump-out Wells	W401	P	1		1						2
		W402	P	1		1						2
		W403	P	1		1						2
		W404										2
		W405	P	1		1						2
		W406	P		1		1					2
		W407	P		1		1					2
		W408	I	1		1						2
		W409	P	1			1	1				2
		W410	P	1			1					2
		W411	P		1		1					2
	Observation Wells	W509										2
		W510										2
		W511										2
		W512										2
		W513										2
		W514										2
	Special Observation	SO401	PMC									
	Wells	SO402										
		SO403										
		SO405										
	Channel	CL-N	I		1							
		CL-S	I		1							
		North Staff										2
		RR Staff										2
		South Staff										2
Off-site	Top of Surficial	DNR #11016			1		1					2

Table 35
Annual Sample Program - 2007
Groundwater and Surface Water Monitoring
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level (1)
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	
OU2 -	Upper Aquifer	W124	I		1		1					2
Containment		W125	I		1		1					2
Vault Area		W126	I		1		1					2
		W127	P		1		1					2
		W128	I		1		1					2
		W129	I		1		1					2
		W130	I		1		1					2
OU3 -	Top of Surficial	W2102	PMC									2
City Dump Pit		W2103	PMC									2
Area		W2104	PMC									2
		W2105	PMC									2
		W2106	PMC	1		1					1	2
		W2127	I		1		1					2
		W2128 (2)	P					1				2
		W2129	I		1		1					2
		W2134	P		1		1					2
		W2135	I		1		1					2
	Bottom of Surficial	W2233 (2)										2
		W2234	I		1		1					2
		W2236 (2)										2
	Lower Aquifer	W2301	P		1		1					2
		W2325	P		1		1					2
		W2326	P		1		1					2
		W2329	P		1		1					2
		W2333	P		1		1					2
		W2335	I		1		1					2
		W2336 (2)										2
	Pump-out Wells	W2401	P	1		1						2
		W2402	P	1		1						2
		W2403	P	1		1						2
	Scavenger Wells	S2401	PMC									2
		S2402	PMC									2
		S2403	P									2
	Observation Wells	W2501										2
		W2502										2
		W2504										2
		W2505										2
Additional	HatcheryWells	Fish 1			1		1					
Wells		Fish 2			1		1					
		Fish 3			1		1					
		Fish 4	I		1		1					
Number of Samples				11	43	9	43	4	0	0	1	158
Number of QC Samples												
	Duplicates	5%		1	3	1	3	1	0	0	1	8
	Field Blanks	5%		1	3	1	3	1	0	0	1	--
	MS/MSD	5%		1	3	1	3	1	0	0	1	--
Total Number of Samples				14	52	12	52	7	0	0	4	166

Table 35
Annual Sample Program - 2007
Groundwater and Surface Water Monitoring
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level (1)
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	

Notes:

This table identifies the number of samples at each station over the year.

(1) Water levels will be measured in during the spring and fall sampling event.

(2) See Quarterly Sample Program (Table B-2a)

Category

I - Indicator Monitoring Station (Annual Sampling)

P - Performance Monitoring Station (Bi-annual Sampling)

PMC - Product Monitoring and Collection Station

Table 36
Quarterly Sample Program - 2007
Groundwater and Surface Water Monitoring
St. Regis Paper Company and City Dump Pit Sites

Operable Unit	Screened Interval	Station	Category	PCP		PAHs			BETX	DRO	Dioxins	Water Level
				8270	8151	8270	8270-SIM	8270-SIM (Calif.)	8260	8015M	8290	
OU1-	Bottom of Surficial	W212	I		4		4		4	4	4	4
Treating Facility		W213	I		4		4		4	4	4	4
Area		W220	I		4		4		4	4	4	4
OU3 -	Top of Surficial	W2128	P		4		4		4	4	4	4
City Dump Pit	Bottom of Surficial	W2233			4		4		4	4	4	4
Site		W2236			4		4		4	4	4	4
	Lower Aquifer	W2336			4		4		4	4	4	4
Number of Samples				0	28	0	28	0	28	28	28	28
Number of QC Samples [(1)]												
	Duplicates			0	2	0	2	0	3	3	3	2
	Field Blanks			0	2	0	2	0	3	3	3	--
	MS/MSD			0	2	0	2	0	3	3	3	--
Total Number of Samples				0	34	0	34	0	37	37	37	30

Notes:

This table identifies the number of samples at each station over the year.

[(1)] Number of QC samples as follows:

PCP - 5%
PAH - 5%
BETX - 10%
DRO - 10%
Dioxins - 10%

Category

I - Indicator Monitoring Station (Annual Sampling)

P - Performance Monitoring Station (Bi-annual Sampling)

PMC - Product Monitoring and Collection Station

Table 37
Monthly Sample Program - 2007
Effluent and GAC Performance Monitoring Program
St. Regis Paper Company and City Dump Pit Sites

Month		PCP 8151M Influent	PCP 8151M Primary	PCP 8151M Secondary	PCP 8151M Effluent	PAHs 8270-SIM Effluent	Metals [A] 6020; 7195/6010B Effluent	BETX 8620 Effluent	DRO 8015B Effluent	Dioxins/furans 8290 Effluent
January		1	1	1	1	1	1	1	1	
February		1	1	1	1	1	1	1	1	1
March		1	1	1	1	1	1	1	1	
April		1	1	1	1	1	1	1	1	
May		1	1	1	1	1	1	1	1	1
June		1	1	1	1	1	1	1	1	
July		1	1	1	1	1	1	1	1	
August		1	1	1	1	1	1	1	1	1
September		1	1	1	1	1	1	1	1	
October		1	1	1	1	1	1	1	1	
November		1	1	1	1	1	1	1	1	1
December		1	1	1	1	1	1	1	1	
Number of Samples		48				12	12	12	12	4
Number of QC Samples										
Duplicate	5%	3				1	1	1	1	1
Field Blank	5%	3				1	1	1	1	1
MS/MSD	5%	3				1	1	1	1	1
Trip Blank [B]	--	--				--	--	12	--	--
Total Number of Samples		57				15	15	27	15	7

Notes:

[A] Arsenic, Copper, & Chromium. If chromium exceeds 11 µg/L in any effluent sample, additional effluent samples will be collected and analyzed for hexavalent and trivalent chromium.

[B] One trip blank per event when BETX samples are collected.

Flow rate and pH are measured continuously.

Numbers indicate the number of samples during each event.